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THE AMERICAN MEDICAL MONTHLY.

JANUARY, 1860.

ESSAYS, MONOGRAPHS, AND CASES.

The History of Two Cases of Pelvic Presentation, with Remarks. By
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An examination of the statistics of pelvic presentations (whether of the breech, the feet, or the knees) shows them, beyond dispute, to be more destructive to foetal life than any other anomaly or complication of labor with which the obstetrician has to deal. In itself, a pelvic presentation is by no means so dangerous as that of the arm or funis, but the first occurs so much more frequently than the two last that in the aggregate its results are much more disastrous. The first class of presentations are met with about once in 50 cases, while the two last occur each about once in 250; so that a practitioner who has managed 1,000 cases of labor will probably have met with 4 of each of the two last, and with 20 of the first. Even allowing that in the management of these 20 he has met with the most marked success, he will in the end have to deplore their results more than those of the more dangerous and less frequent anomalies.

There is, however, but one method of testing this assertion, and that is by statistical evidence accumulated in some extensive and well-organized field of research, and I know of none which will prove more reliable than that of the Royal Maternity Charity, London, which is given by Dr. Francis Ramsbotham. From his statistics I

have arranged the following table, which will show at a glance the relative results of various mal-presentations and complications occurring during a period of twenty-two years:

Total number of still-born children from 1828 to 1850..	1822
Occurring with prolapse of funis.....	128
“ “ transverse presentation.....	97
“ “ hæmorrhage.....	85
“ “ lingering labor.....	62
“ “ placenta prævia.....	50
“ “ breech presentation.....	253

It will by this be seen that pelvic presentations proved not only *more dangerous* than others, but that their results were almost twice as disastrous as those of any of their congeners; and since the authenticity and reliability of these data are unquestionable, we might from them alone conclude that what was true in twenty-two years of extensive experience in that institution is true also in the whole range of practice.

But to lay this part of the subject more fully before the reader, I have tabulated the mortality given by most of the prominent obstetric writers of our time.

Authority.	Mortality given.
Denman.....	1 in 3
Rigby.....	1 “ 3
Churchill.....	1 “ $3\frac{1}{2}$
Tyler Smith.....	1 “ 3
Cazeaux.....	1 “ 7
Dubois (<i>vide</i> Chailly).....	1 “ 12

Why the statistics of French writers should differ so widely from those of Great Britain and America I am unable to conjecture; but even accepting those of Paul Dubois, 1 in 12, all must agree that this class of cases is comparatively very fatal, when remembering that in natural, vertex presentations, 1 in from 30 to 50 children only is lost.

In conversing upon this subject with practitioners in this country, I have heard the opinion almost universally expressed that the proportion of deaths arrived at in most of these computations is much too large to represent the results of American practice. Let it, however, be borne in mind that these statistics were collected in large hospitals, where assistance was always, and early at hand, and where the frequency of difficult cases had engendered in the attendants a degree of operative skill rarely arrived at by the private practitioner, and it

must be conceded that if such evidence is to be admitted anywhere, it must be so here; there is no reason for doubting its correctness in this case more than in many others in which it is willingly received as proof. All such evidence is imperfect, but no more so here than elsewhere.

Causes of Death in Pelvic Presentation.—The causes which in these cases produce such fatal consequences are too evident and simple to require in the present connection anything more than a very superficial examination. They are:

1st. Asphyxia from retarded delivery of the head.

2d. Dislocation of the vertebræ, or injury to the spinal cord, from violence at the hands of the obstetrician.

The blood of the fœtus in utero is aërated by the placenta; being expelled by the parturient efforts, and the placenta becoming at once unable to perform its function longer, the child instantly aërates its blood by respiration; but if it should so happen that both sources of aëration were simultaneously embarrassed or destroyed, the blood would rapidly become carbonized, and asphyxia would result. In a vertex presentation, as the head and chest sweep over the perineum, the contracting uterus compresses, sometimes casts off, and thus disables the placenta; but now access being had to atmospheric air, the child breathes at once, and the condition of the placenta does not affect it.

When, however, the body of a child presenting by the breech or inferior extremities has been expelled, and the head, occupying the cavity of the pelvis, is retained, both sources of aëration are simultaneously cut off, and the position of the infant is necessarily a most dangerous one.

The placenta cannot perform its function: 1st, because the cord, compressed by the head against the walls of the pelvic passage, is rendered impervious; 2nd, because it (the placenta) is itself compressed, diminished in size, and “crumpled” by the contracting walls of the uterus; or it may be detached by the same influence, either in part or in whole. Such compression, even if no detachment has occurred, is enough to disorder its circulation, and cripple it in its function.

On the other hand, the head being in the pelvis instead of external to it, as in a vertex presentation it would be, the lungs are prevented from replacing the placenta; the child makes, perhaps, a few feeble efforts at respiration, but failing in obtaining air, dies from sheer apnoea.

Should such detention of the head occur, nothing can save the child from death but intelligent, decisive, and efficient interference on the part of the medical attendant. Should this interference be rash and ill-judged; should a want of knowledge incite, or a loss of coolness permit him to seize the body and make traction by it to liberate the arrested head, then another danger is added to those too manifold ones which nature has presented, and an injury to the spinal cord takes place, or a dislocation of the processus dentatus snaps the thread of life forever. Well might the unfortunate infant, under such circumstances, repeat the reproach of the dying Cæsar!

Having demonstrated that the immediate cause of fœtal death in these cases is retardation of the head in its passage through the pelvis, it will not, I think, be out of place to glance at the causes of such retardation, they being, in reality, the remote causes of the fatal issue. To economize time and space, I will mention them as briefly and succinctly as possible. They are as follows: 1st. The least compressible (and therefore largest) part of the child, instead of passing first, as in vertex presentation, and dilating the passage for parts which are to follow, comes last, and is arrested, as the large end of a wedge is by the fibres of the wood into which its apex has been drawn.

2nd. The head presents itself to this undilated passage with its longest diameters being in a state of extension instead of flexion.

3rd. The head thus badly presenting, having left the uterine cavity, and being in the undilated vagina, is out of the influence of uterine efforts. The uterus has lost almost all power over it, and the obstacles already mentioned are often sufficient to arrest it entirely.

Rules of Treatment in Pelvic Presentations.—The indications suggesting themselves for the successful management of pelvic presentations are eminently simple, and may all be included under the following heads:

(a.) Let the labor progress as slowly as possible until the navel has reached the perineum, that the passage may be fully dilated before the advent of the head. Make no traction upon the child, and exhort the woman not to "bear down," but let the labor progress under the force of the uterus, and not of the abdominal muscles.

(b.) As the labor approaches its close, *place the woman in the obstetric position*. I believe that many a child has been lost by disregard of this precaution; for the patient being upon the back, or inconveniently fixed upon the side, the manipulations of the obstetrician cannot be efficiently performed.

(c.) The funis coming within reach, draw down a loop, and let its pulsations decide as to the propriety of hastening the labor.

(d.) The funicular pulse failing, exhort the woman to "bear down" violently; aid the delivery of the arms, if necessary, and direct an assistant (previously instructed) to press the fundus uteri powerfully towards the vulva, and thus supply the force which the organ itself can no longer give.

(e.) If the head is arrested, perform simultaneously flexion and extraction, by introducing two fingers into the mouth of the child, and placing two of the other hand against the occiput, at the same time that we give it air by pressing back the perineum. If not at once successful, *lose no time*, but apply the forceps, which should always be at hand in such cases.

Why do these means fail so often?—They are apparently sufficient for all the exigencies of the case, and yet the number of "failures" even with them at our command, is a sufficient cause for regret to every right-minded obstetrician. One reason for this undoubtedly is to be found in the fact that many do not regard the rules laid down, but hasten the early parts of the process by exhortations to the woman, and often by fixing a finger in the groin and drawing the child downward. Another interference no less injurious is that of drawing down the feet in a breech presentation; thus rendering the presenting part, already too small, still smaller and still less capable of preparing the way for the passage of the head, the *experimentum vitæ* of the whole process. Finally, the climax courted by such unwarrantable acts of officiousness is capped by a violent effort to deliver the arrested head, and the force, being applied to the body, probably severs the delicate ligaments which unite the axis to the atlas, and decides at once and forever the fate of the child.

The frequency of so melancholy a performance may be denied by many, but for the truthfulness of the picture I fearlessly appeal to those who have seen our art as practiced by *many* in the lower walks of society in large cities.

But that there are causes of death inherent to the nature of the cases is sufficiently evidenced by the statistics of skillful and experienced practitioners, as set forth in this essay. The head being large, the labor rapid, and the soft parts rigid, a source of danger at once presents itself sufficient to account for the evil results which occur so often under the most able supervision. Here expulsion of the head being retarded, the practitioner endeavors to deliver manually; suppose that he fails, which he often will? Then the forceps offer the best chances of safety, and

they are at once applied, and the head drawn out of its prison-house. But it takes seconds, perhaps minutes, to apply these instruments, and although they will deliver, it is a question whether in the majority of cases the heart will not have ceased to beat before they have done so. Three minutes have perhaps been consumed, or perhaps only two, in the performance of our manual experiment and in the application of the instruments, yet this has proved by one or two minutes too long a period for the child to exist without air.

During our efforts, manual and instrumental, the child has not respired, and the placenta, its uterine lung, being, as aforementioned, crippled and powerless, asphyxia takes place under the very best management.

The great desideratum here is evidently this: to give the child air at the same time that we are manipulating to deliver it. For the accomplishment of this end, so important in its apparent insignificance that it may be termed the pivot of the process, and which is, after all, the feather which turns the scale for life or death, for success or failure, it is commonly recommended to press back the perineum with the dorsal surface of the hand, the fingers of which have been passed into the mouth, thus creating a canal through which air may be transmitted to the child.

This, upon paper, looks very plausible, and may be deemed very simple by those who have not tried it, but at the bedside it will often be found impossible to succeed in its performance, although in some cases its results are strikingly demonstrated, and it is always a means to be essayed. Some years ago, Dr. Bigelow, of Boston, recommended passing up to the mouth of the child a flexible tube, but, for evident reasons, keeping this tube in the mouth would be no easy matter, and it would almost inevitably interfere with the manual delivery of the head by the accomplishment of flexion. It is probably due to these objections that it has not found favor with the profession sufficient to bring it into general use; in proof of which stands the fact that it receives scarcely a mention (certainly nothing more) in our treatises on midwifery. Thus much has been done to obviate the results accruing from an inability to get air. Dr. Joos, of Schaffhausen, has advised a means for accomplishing the much desired aëration by still availing ourselves of the placental functions. Apparently dissenting from the views expressed in this paper with regard to the condition of the placenta after the expulsion of the child, he has advised encasing the cord in a spiral canal, slit on one side to receive it, which is to be passed up alongside of the head, for the purpose of

obviating obliteration of its vessels by pressure. But *cui bono*? If the cord were kept as safe as the Koh-i-noor, it would in many cases no more secure aëration, than would the perviousness of our aqueduct insure a supply of water, if the Croton Lake were empty.

But besides, even if this protection would subserve the purpose, I cannot believe that the application of the tube of Dr. Joos will ever come within the range of things possible; certainly not of things practicable.

About eight months ago an unfortunate case of pelvic presentation occurred to me which was invested with such peculiar circumstances that I cannot refrain from relating it, and I do so the more willingly because it leads me to the gist of this essay by a very natural connection.

Case of Breech Presentation.—Mrs. O., a lady of about 25 years, placed herself under my care in her third pregnancy, about the approaching termination of which she expressed herself as peculiarly solicitous, for the following reasons: She had in her first accouchement been delivered, by instruments, of a still-born child; in the second, she had a male infant, which had grown to be the delight of herself and husband, and which she had lost a few days before my visit, he being then between two and three years old. Her husband, a man near sixty years of age, had become paraplegic since her existing pregnancy, had lost all virile efficiency, and she looked to her approaching labor as the last chance which remained to her for the accomplishment of a consummation which she most devoutly wished for, the birth of a living child.

Soon after, I was called to attend her in labor, and upon making an examination was not a little chagrined at finding a large breech occupying the superior strait. Informing her husband of the condition of things, I dispatched a messenger for my forceps, and allowed the labor to proceed as slowly as possible. The rest of the story is, alas! an old one. The labor went on regularly and unaided until the head got into the cavity of the pelvis; there it stopped, and no effort of mine, aided by those of the woman, could deliver it. I endeavored to give air by pressing back the perineum and posterior wall of the vagina, but in vain; so removing my hand, I rapidly slipped on the forceps, and, with some difficulty, drew down the head and delivered. It was too late; the heart had ceased to beat, and a half hour's practice of the ready method failed to elicit a responsive throb.

The child was very large, and the head almost disproportionately so.

I felt, while endeavoring to deliver the head, so confident that if,

at the same time I was making my efforts, the child could have been supplied with air it could have been delivered alive, that I immediately had constructed a tube, which I describe below, and which I determined to employ in the next case I should meet presenting a similar difficulty.

The desideratum being, not simply to give the child air, but to do so by some method which would in no wise interfere with or retard delivery by manual or instrumental means, I thought that a tube, composed of any flexible material, such as covered spiral wire or an ordinary large gum-elastic catheter, fitted with rings which would admit the fingers, might be passed up with them in our effort at manual delivery, and furnish air during it and the (if necessary) subsequent instrumental essay. Accordingly, I had constructed a tube of spiral wire, about the size of a No. 12 metallic sound, arranged with a crossed wire at its mouth, (so as to prevent closure by the tongue,) and two rings of steel wire fixed at its sides capable of admitting the index and middle fingers to the second phalanges.

The accompanying sketch explains the arrangement.



The rings, being at a little distance from the mouth of the tube, do not interfere with the full and untrammelled use of the fingers; and the end of the tube being thus left free, tends to mount up and get over the tongue. The arched wire over the mouth prevents the tongue from fitting over it like a valve, and keeps out plugs of mucus, which might clog and render it impervious. The tube fits between the fingers, and occupies no appreciable space.

Some months passed before a suitable case occurred in which to test the utility of this arrangement, but in time one of the desired description appeared.

Case of Footling Presentation.—On the 2nd of September, 1859, I received a note from Dr. William F. Osborn, of this city, requesting me to hold myself in readiness to aid him in the delivery of Mrs. J., which was daily expected. From her husband, who was the bearer of the note, I obtained the following account of the previous history of the patient: Mrs. J., aged about 35 years, was a well-formed,

healthy woman to all appearances, though she was suspected by her attending physician of having some deformity of the pelvis. She had been delivered five times, and each time of a still-born infant, which had been vigorous up to the time of birth. In four of her five labors the children had presented by the pelvic extremity, and in one by the vertex; all, however, had shared the same fate.

Urged by a strong desire for offspring, this unfortunate couple had employed one after another all those physicians who had been recommended to them by their acquaintances, changing the attendant, apparently, with each disastrous issue.

On the afternoon of September 7th, at 4 P. M., I received a summons to attend upon Mrs. J., who was then in labor, and I at once repaired to her house, where, in company with Dr. Osborn, I proceeded to investigate the case. The labor, which had already lasted five hours, was progressing slowly; the liquor amnii had flowed away, and the uterine efforts were regular and efficient.

Upon a vaginal examination, I found the os dilated to about the size of a dollar, and both feet presenting, (as Dr. Osborn had already made out.) From this time nothing of note occurred until about 6 P. M., when the body was expelled, and the head engaged in the pelvis, with the face looking towards the hollow of the sacrum. At this point the uterine efforts ceased, and the cord soon becoming tense and pulseless, the time for assistance was evidently at hand.

Passing the index and middle fingers of my right hand through the rings of the tube, I inserted them and it in the mouth of the child, being careful to depress the tongue and allow the tube to mount over it. Placing two fingers of my left hand on the occiput, I now performed flexion and attempted extraction of the head, but my efforts entirely failed to move it one jot in the cavity, which it seemed to fill to a hair's-breadth. I now blew through the tube and slapped the buttocks sharply, to make the child inspire, and my impression is that the attempt succeeded, but of this I cannot speak positively. During this time I continued my efforts at extraction, and after a longer time than I have ever seen spent in the delivery of the head of a living child, succeeded in extracting it. The child was somewhat asphyxiated, but by the ready method breathed very soon, cried, and is now doing well.

Before these remarks leave my hands and become "*litera scripta*," I am desirous of attaching to them a few statements, which may serve as answers given beforehand to questions which they may incite.

1st. I do not feel at all sure that the method herein suggested will prove efficient for the end in view, but its very inefficiency may draw attention to an important subject; and my conviction is, that he who succeeds in suggesting some means capable of furnishing air to the child which is balanced on the line which divides uterine and pulmonary respiration, will have the satisfaction of diminishing the mortality of pelvic presentations. As the method advised in no wise interferes with other manipulations, and withal appears to me rational and simple, I have ventured to publish it. It may do no good; it can possibly do no harm.

2nd. The principle involved is due to Dr. Bigelow; I merely endeavor to make practicable what had fallen into disuse from want of a proper method of application. It was only after employing the ringed tube which I have described, however, that I learned that a tube without rings, and requiring the use of both hands in its employment, had ever been advised.

3rd. In taking the opinions of my professional brethren on this subject, I have been surprised to find several doubting whether a child will breathe in the vagina. This is easily answered; for children, as is well known, (I thought by all,) have not only breathed under such circumstances, but cried lustily, and lived with the head thus imprisoned for twenty and thirty minutes. (*E. g., vide Lee's Clin. Midwif.*, cases 239 and 241.)

Lastly, I do not feel sure that the child in the footling case detailed owed its life to the use of the tube, but such is decidedly my present impression. Certain I am that the tube did not interfere with my manipulations, and consequently that it was not detrimental.

When the obstetrician essays the manual delivery of the head, arrested in a pelvic presentation, he is never sure what the result of his efforts will be; the head may slip out easily, or it may be as tightly wedged as if it and the pelvis were out of all proportion. Now if such a tube does not interfere with delivery, and may keep the child alive when this important experiment is being tested, this vital inquiry answered, its use in all cases would be indicated. I am careful, however, to say, "if" such results should be attainable by it; of course this remains to be proven.

The Public Press and the Medical Profession: their Relations and Duties to each other. By NELSON FANNING, M.D., Gilboa, Schoharie Co., N. Y.

At the Annual Meeting of the Schoharie County Medical Society, held at Schoharie Court House, Nov. 15th, 1859, the following preamble and resolution were offered, with the accompanying remarks thereon, by Dr. Nelson Fanning, of Gilboa. By a vote of the Society the same were ordered to be published.

Whereas, The course pursued by many, if not most of the conductors of the press in this country, of not only freely admitting advertisements of quack medicines into their columns, but also of puffing them by laudatory editorials, whilst it tends to perpetuate the reign of Empiricism, is calculated to mislead the public in relation to the utility of such pretended remedies, and retard the progress of medical science, by discouraging the efforts of its votaries for its advancement; *and whereas*, the conductors of such press, in the majority of instances, do not believe in the system they thus encourage: therefore,

Resolved, That in the opinion of this Society, it is the duty of its members, and all regular practitioners of medicine, to withhold their patronage from that portion of such press as shall be found *obnoxious* to that charge.

We are continually dinned with the cry about the liberty of the press, as well as denunciations against a *hireling* press. I would not abbreviate in the least the liberty of the press. The conductors of such have the right to propagate whatever doctrines they choose. Legally, at least, they have this right, when their sentiments do not conflict with the laws of the land. Morally, also, they possess this right, when the sentiments they advance are their own unbiased views. But when a public newspaper is prostituted to the promulgation of doctrines or sentiments which its conductors do not believe, or practice; when by so doing the public are misled, error fostered and perpetuated, then clearly, in my opinion, they violate their duties as public journalists, and prostitute their talents and press for an unworthy purpose, especially when that purpose is obviously for *gain*, at the sacrifice of every principle that should actuate them. They become hirelings in every sense of the word. The conductors of the press are morally bound to promulgate only their honest sentiments, to preach what they practice and believe. What would be said of a clergyman who preached one doctrine, and at the same time believed in another widely different; or of a physician, who, believing in the principles recognized as the guide of the profession to which he belonged, yet for the sake of gain, pandered to a misguided public, and practiced on other principles not in accordance with his sense of right? And what shall we say of the conductor of a public newspaper, who, disbelieving in quackery, employs a regularly educated physician in his family, and yet unblushingly fills his columns weekly with the most absurd

advertisements of nostrums, and in addition thereto almost weekly bestows, editorially, puffs and laudations on such nostrums to misguide the public and delude it into the purchase of such pretended remedies, of which he literally knows nothing at all, and all this for the sake of the reward of a hireling?

If we denounce such conduct on the part of such conductors of the press, we are sure to raise the hue and cry from them, that we aim to abridge the liberty of the press, when we only aim at the conduct of a hireling. And yet the conductors of such press are continually charging each other with being hirelings. We hear of a hireling press when it is bought up to advocate the interests of political partisans, or the claims of persons for various purposes and interests. But when a large proportion of the papers in the land teem with hireling matter, that goes to injure the public health, we scarcely hear a voice raised against a hireling press. I need not specify instances to prove the truth of what I complain. Take up almost any of the public papers that find their way to every family throughout the length and breadth of this country, and you will find their columns more or less loaded with such matter.

It would be some consolation if our religious papers at least were, as a whole, free from the above charge. But truth compels me to say, that, with a few honorable and praiseworthy exceptions, their columns too are polluted, and their press prostituted to the base and servile use of heralding the latest and most absurd patent nostrum of the day. And, like the former class of papers, you will often find conspicuously inserted in their columns an editorial recommendation, with the injunction that no family should be without such remedy. Not unfrequently will this commendation be rendered more cogent by the certificate of the Rev. Doctor such an one, to quicken the sale of the article. And for what do they do this, it may be asked? I answer, for the same purpose that Judas betrayed his Master—the thirty pieces of silver. Exhibiting to the world the example of a hireling press, of recommending to their fellow-men remedies of which they know nothing, and in which charity for their better judgment prompts us to say they do not believe, or if they unfortunately do believe in the efficacy of such pretended remedies, the sad spectacle of “faith without knowledge.”

Need we wonder at the wide spread of quackery at the present day, when every store or shop is full of patent and puffed nostrums; or that the empiric, in their wake, finds ample employment and commendation, when the newspaper that finds its way to every family

endorses and recommends such patent remedies? Need we wonder that empiricism is on the increase, or that communities can be found where the family physician, the pretending charlatan, and the last puffed and patented catholicon, or all-healing ointment, are regarded at length with equal respect?

I do not include in the above catalogue all the public newspapers of the day. There are honorable exceptions, and I leave it to each of you to say what is your duty in this matter.

You who, as physicians, believe what you practice, you would not sit under false teachings from the sanctuary; nor with your means perpetuate error. And will you, then, uphold those who are, and have been for years, as the disseminators of public sentiment, reflecting not their own honest sentiments, nor that of your own; who aim indirectly to perpetuate the reign of empiricism, to the injury of thousands, whose welfare, as custodians of the public health, you are bound to protect, whilst at the same time you would show to the world a proper respect for yourselves and your calling?

Were these puffed and editorially laudated nostrums, or panaceas, as they are styled, always harmless, or the dependence on them by their deluded dupes always safe, then might we pass the matter by the more readily. But it is not only the *pockets* of those who employ such remedies that suffer. It is of little comparative consequence that by dependence on such means the physician loses pecuniarily in his business; but the confiding and deluded sufferer, who clings to hope, even in hopeless cases, is the loser. How often is he made to do so by placing his faith on what he sees in print, the endorsement of some paid conductor of the press, who adds the weight of his name and the influence of his paper to puff an article of which he is totally ignorant, and which he would not for the world administer to one of his own family.

This course has been going on from time immemorial, and is still going on, only on the increase. Splendid fortunes are made yearly through the sale and manufacture of nostrums, aided by the press as the chief ally and instrument of support. The injury which such puffed and advertised nostrums has done to the health and lives of mankind I need not here attempt to portray. The records of eternity alone can reveal the long black catalogue of disease rendered hopeless, and of death produced, by such means, which unprincipled and avaricious men manufacture and sell, and equally unprincipled and avaricious conductors of the press herald forth to the world through their hireling columns, as sovereign balms for every wound, and sure panaceas for every ill that flesh is heir to.

It is time that physicians, as such, should act in this matter. Have we really been trampled on so long, that we bear the foot of the oppressor without a murmur of complaint? Step by step has the public faith been lessened in the medical profession, and step by step has the pretending charlatan been gaining ground, until there is more temptation of gain for the irregular practitioner than for those in the ranks of the profession. For all this, instead of having an ally in the conductors of the press generally, we too often find a discouraging enemy.

The profession is not so powerless but that its influence might and should be felt in this matter, and would be to some extent, at least, if it only patronized such newspapers as are free from the charge I have made. Do we not owe this much to ourselves, our profession, and our honor as medical men? There are sufficient papers published, I do not doubt, whether political, religious, literary, or scientific, that are free from this charge, to meet our wants. If not, we shall soon have them, if we once act concertedly in this matter. Shall we give to such papers our support, or not, is the question?

No profession, calling, trade, or occupation can, or will be respected, until its members make it so, by respecting themselves. The agriculturist and the artisan were looked upon as inferiors, and deemed their occupation as such, until association gave them a standing, and when they asserted their dignity and importance the world yielded its ready assent. So it is with our profession, we must respect our calling to make it respected. Let us arise, then, shake off our sluggishness, and stand up for its true dignity and interests against whomsoever and whenever assailed.

Public opinion, it has been justly remarked, is made by talking and the press. The false popularity that quackery enjoys, as well as many of the popular nostrums of the day, is the offspring of false teaching and the press. False teaching from neighbor to neighbor, from parent to child. The child, as it escapes from the nurse's arms, beholds in gilded letters and magnificent capitals the showy labels on the nursery bottles; the family medicine-chest is filled with patent humbugs, showy and glittering, and before it can hardly reason it is taught to reverence these household gods of empiricism by the confiding mother, whose faith in their efficacy has been created by the omnipotent power of the press. Quackery, too, dwells in palaces, and rolls in wealth. A Swaim could amass his million out of his panacea, and a Townsend erect his marble palace from the proceeds of his sarsaparilla bubble. But the true physician, he who has spent the best of his life in cultivating a knowl-

edge of his profession, inhabits the lowly cottage, is unostentatious, and too often neglected, and poor. Would you elevate him and his calling? If so, I repeat it, respect him, and let him respect it. Let us, if we have not, cease to recommend or use nostrums, and have no connection with quacks; exclude them from our counsels. If the community will not employ us, let it employ them, and we will retire to humbler, if not more congenial pursuits.

Now, gentlemen of the Medical Profession of Schoharie County, what have we been doing in years past to advance the interests of our profession in this county? Have we not been sitting listlessly by the pool, waiting for the waters to move, or disheartened, may be, with the slow appreciation of a public from whom the realization of our expectations has not been fulfilled? If we have been wanting in times past, I trust we shall not in the time to come. We are already beginning in the right way. The reorganization of this Society I hail as a bright harbinger of a better time coming. Let us welcome its advent, and speed its progress as becomes the devotees of a noble and time-honored profession.

Case of Fibrous Uterine Tumor growing from the Fundus Uteri, within the Abdomen, over 12 lbs. in weight, successfully removed, and perfect recovery for three years. By ROBERT NELSON, M.D., New York.

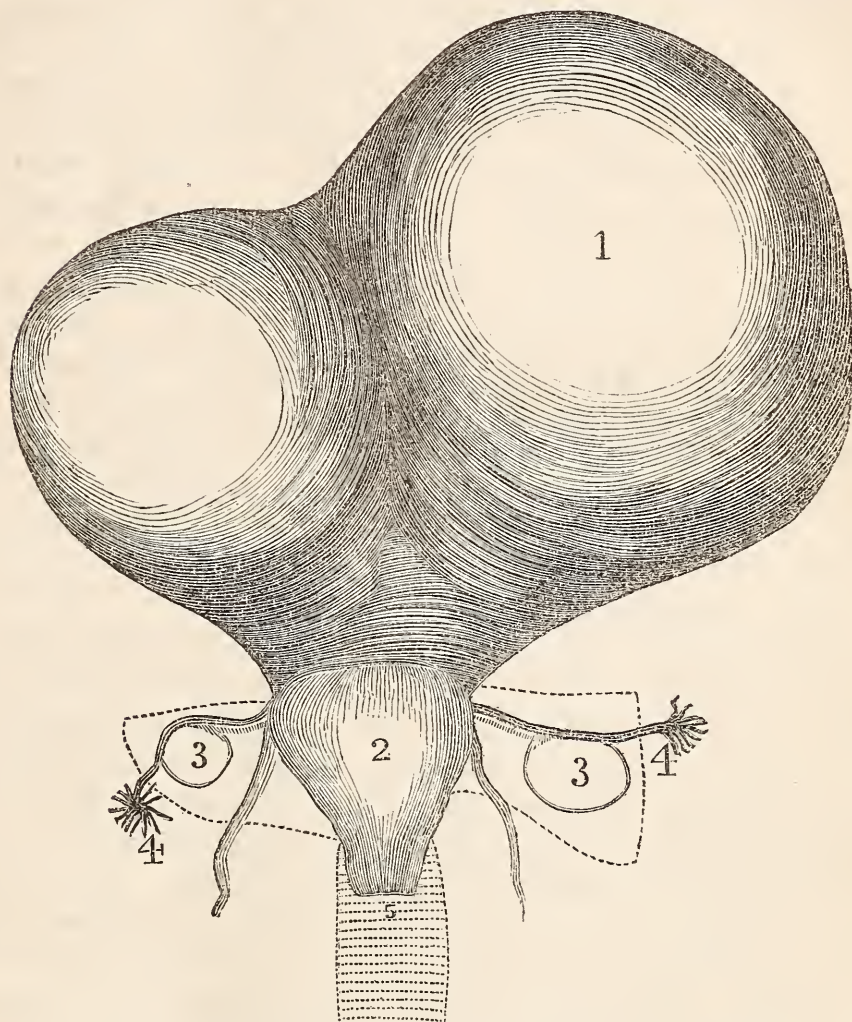
[Read before the N. Y. Medico-Chirurgical College, Dec. 22, 1859.]

Mrs. David Sidle, æt. 34, had her first catamenia at the age of 16, which continued with regularity ever since; has never been troubled with the ordinary uterine sufferings of women. Married at 25, has never been pregnant. She wishes advice and treatment for an irregularly shaped tumor in the abdomen, of over five years' standing. It gives her no pain, or other inconvenience, than by its weight and pressure on the viscera. For a long time past has been under routine treatment in New York and Brooklyn, such as leeching, cupping, blisters, issues, tartar-emetic ointment, &c., all of which have left permanent marks on the abdominal skin of their useless severity. She has been assured, and says, that she has two ovarian tumors. The larger one is on the left, the smaller on the right side. Their growth has been slow, until this last month; since then they have increased to double their former size. The left tumor fills all the left iliac region and extends up to the ribs, and a little way to the right

of the linea alba. The right one is smaller; they leave an interval between them, into which the abdominal parietes can be pressed. When she stands up the whole mass presses forward; lying down, on either side, they sag that way, and do not appear to be adherent in front. They are very hard, inelastic, and free from pain, but distress her very much by their distention, crowding the viscera towards the thorax, impeding respiration, and pressing on the stomach so much as to limit its capacity and confine her to a scanty meal, though desirous of a hearty one. From dyspnœa, incapacity of the stomach, indefinable distress and rapid increase of the tumors since the last few weeks, she is convinced that she cannot hold out much longer; and believing her trouble due to ovarian enlargement, of which she was assured by her physicians in New York and Brooklyn, she now solicits an operation for their removal, though well aware of its magnitude, and the risk to her life. Having advised her to reflect a while longer, she returned to her residence, 50 miles in the country; but came back in eight days, a woman much altered for the worse, in looks and distress. She is now incapable of walking from her hotel to my house, as she did the first time she called on me.

June 25th, 1856. Assisted by Drs. Yanney, Huard, Henry Nelson, and in the presence of several practitioners, chloroform administered, the operation was commenced by an incision through the linea alba from near the pubis to two-thirds above the umbilicus. The double tumor was rolled out, followed by the intestines in a gush. It grew from the whole base and sides of the uterus, here enlarged, by a neck three inches in diameter, the largest portion filling the whole left side of the abdomen, and the right reaching to the ilium, but not so high up as the left one; the third process, or posterior portion, extended into and filled the hollow of the sacrum. It was traversed by several broad, flat veins on its surface, traveling to the lateral ligaments. The left ovary was about the size of a butternut; its fallopian tube natural, though vascular; the fimbriæ expanded, and adhering to its digitations were a few vesicles, the size of a pigeon-shot. The right ovary, tube, and fimbriæ were quite natural. The neck of the tumor was transfixed by a long needle and tied in three portions; the peritoneal surface being slightly divided, so as to bury the ligature without constringing that membrane. The neck was now divided, and the tumor removed. After this we could see that a considerable proportion (the third process) of the tumor extended deep into the hollow of the sacrum, adhering to the base and posterior face of the uterus. This could not be removed unless along with the uterus.

The next step was to replace the intestines, which were left outside unfingered or meddled with until now, and to close the wound with ten common interrupted sutures and adhesive straps—the ligatures from the neck hanging out above the pubis—compresses and tailed bandage.



1, Fibrous Tumor. 2, Uterus. 3, Ovaries. 4, Fimbriae of Fallopian Tubes. 5, Vagina.

She came out of the anæsthetic state slowly, and vomited a little. Two grains of opium given. Slept comfortably from nearly twelve to six p. m., though interrupted a few times by vomiting a mouthful.

26th. *Second day.*—A good night: no fever, pulse and tongue natural, no thirst. Says she is subject to acidity in the stomach, and feels a rawness down the œsophagus and in the stomach; vomits, or rather regurgitates, a mouthful of acid fluid; she looks quite natural.

27th. *Third day*.—Passed a tolerable night, but complains of acidity, raw feeling down œsophagus and in stomach; vomits, or regurgitates, a mouthful occasionally, and without nausea. No fever, nor pain in abdomen; bowels confined; turns from one side to the other to relieve lassitude; but this has disturbed the dressings, which are now saturated with *liquor abdominalis* escaping at the exit of the ligatures. Remove the wet, to substitute dry compresses. What can be seen of the wound in the intervals between the straps is united, and does not present even a shade of color to indicate inflammation, nor has the cut been disturbed by her frequent rolling over in bed. No tenderness on pressure anywhere; abdomen slightly tumid from flatus; no motion. To take castor oil, and at bedtime ij. grs. opium.

28th. *Fourth day*.—Had a copious evacuation this morning; pulse and countenance natural; is lying on her side. Has taken broth and bread. Raised in bed to 45°, to relieve lassitude. Troubled with flatus in both stomach and intestines; face slightly flushed at 2 P. M. To take vj. grs. calomel. This operated freely in the evening, and brought away a quantity of fig-skins, eaten four days before the operation; flatulency quite relieved; sour stomach and raw feeling in œsophagus much diminished. Replaced the wet with dry compresses, the liquor abdominalis still escaping rather freely.

29th. *Fifth day*.—Has had refreshing sleep, in naps of three hours; no pain in abdomen; no fever; had several liquid stools; urinated by herself to-day, for the first time since the operation; slight acidity of stomach and raw feeling in œsophagus continues; to take another dose of castor oil. Replaced the wet with dry dressings; liquor abdominalis escaping in less quantity; ij. grs. opium at bedtime.

30th. *Sixth day*.—Had a very good night. Several stools, with much flatus, from the oil of yesterday. Mouth, œsophagus, and stomach much easier; is cheerful, looks well. Ate cold roast lamb for breakfast. Removed all the straps and four sutures; dry in place of wet dressings. Escaping fluid has changed from water to sero-purulent; ij. grs. opium at bedtime.

July 1st. *Seventh day*.—Had a tolerable night, but is uneasy the fore part of this day, occasioned by pain in the loins, but which ceased in the afternoon, on the appearance of the catamenia—suppressed two months; bowels open; acidity and soreness in the mouth and œsophagus nearly gone. To have cold roast mutton, which she solicits. Changed the wet dressings, now colored with the escape of a little dissolved blood. Removed all the sutures; ij. grs. opium at bedtime.

July 2d. *Eighth day*.—Removed all the old straps and applied new ones, but united in its whole length, excepting where the ligatures came through. Sat up in bed singing part of the day; is very jocose.

On the twelfth day left her bed for her chair; took breakfast at table. On the fourteenth day a part of the slough of the pedicle of the tumor came to the orifice, where the ligatures came out, and was withdrawn. A small amount of sero-purulent matter still escapes, but no water, the peritoneum having adhered around and inclosed the ligatures in a canal.

July 29th. *Thirty-fifth day*.—The second of the three ligatures came away; very little matter escapes.

July 31. Catamenia returned. August 5th, returned home well. August 12th, last ligature came away at her home; discharge quite ceased.

She is thoroughly recovered, and attends to her poultry-yard, dairy, &c., as heretofore.

REMARKS.—It is unnecessary to comment on the absurd external treatment she underwent, with a view of acting on or removing enlargement of the ovaries, even if they had been affected. The slow progress of the case for years, and then the sudden and rapid increase, is a usual occurrence to most tumors. The mass removed weighed over 12 lbs.; grew from the fundus and back of the uterus, which was here enlarged and developed into a fibrous structure merging into the tumor; but the lower part of the uterus was natural; the os and cervix in the vagina felt quite so. Cut into, the tumor presented a hard, yellowish, fibrous, closely-knit structure, without apparent vessels in it, though its peritoneal surface was coursed over by a few broad and flat veins. At the time of the operation, I felt inclined to remove the uterus along with the tumor, which could easily have been done, and since then I have regretted not having done so, in preference to leaving so large a pedicle and portion of diseased structure behind. In this operation, as in several others, I disregarded the useless precaution of heating the room. The window was left wide open in this case, and in another that could not be heated the temperature was 46°, the season being cold and rainy. From the numerous cases of exposed intestines I have seen caused by various wounds, and no evil following, I was always satisfied that exposure to cool air, for a short time, was more injurious in imagination than in reality. In one case—a little girl—the parietes of the abdomen were torn open by falling from a height on to a hook; the bow-

els escaped, and were collected in the child's clothes, in which state she was laid in bed. It took more than half an hour before I reached her. I found some small portions of the intestine adhering—dry—to her clothes. This case recovered without notable peritonitis, as did many others I could cite. I have known punctured wounds into the abdomen, as by a skewer, a scissors, pitchfork-prong, bayonet, &c., produce high inflammation, but very seldom has a large incision done so, unless "too surgically" treated. The same thing happens in large joints, especially the knee-joint. On these facts, I do not hesitate to make free, roomy cuts into these cavities, enabling an operation to be completed without that repeated groping, so injurious to the patient, that too often happens to those who are sparing of their incision.

In every case where a free incision is made into the peritoneal cavity, there is an escape of peritoneal liquor; and when a ligature is necessarily left in the track, the liquor will escape for several days, wetting the dressings, until the peritonea have adhered about it, inclosed it in a canal, as it were, shutting it out of the abdomen. I have not seen this fact noticed, though it is doubtless well known to experienced surgeons, and ought to be made known to those who are less well informed.

The frequent turning over, and change of position, even from the first hour, did not appear to derange the closure of the wound. The gastric trouble was an idiosyncrasy, increased by the presence of undigested fig-skins, and doubtless contributed much to her restlessness and vomiting. The sutures were left in six whole days, fearing the possible effects of her movements. On the seventh day her catamenia, two months suppressed, appeared, and reappearing twenty-four days after, spoke favorably of the operation.

Not having seen or heard of the patient since a few days after her return to her home, until lately, I preferred waiting to know the ultimate result of the case—one in which so much of the disorder had been left behind. I have lately received a letter from her husband, dated Martinis, 17th Nov. last, in which he writes: "You wished to hear from me in relation to my wife after we left San Francisco. She continued to improve in health steadily, and in a short time she was able to attend to her household work. The opening where the ligature came out, about the size of a pipe-stem, discharged a little every day for some time. The following summer she never enjoyed better health, never was so pleased in all her life before; we were

both delighted with her condition; so much so, that her mother sent her a fine, rich carriage to ride about in. However, in December, 1858, she was all at once taken down with a violent pain in her bowels and a great swelling. I took her to San Francisco, to Dr. Huard, the same that helped you at the operation. He applied poultices, and in two days it broke near the lower part where the opening had been made. The matter that issued was bad indeed; the discharge increased till it ran a stream the size of a large pipe-stem. This opening increased in size; her flesh seemed to decay away. Her food also came away ten minutes after eating it. She had no passage over a month before she died, on 17th March last, in her full senses, without a groan, having enjoyed life nearly the whole of three years."

It will be seen by this account that her last illness continued three months, during a month of which time her bowels were not moved, the ingesta passing out of the abdominal perforation.

What was this sudden and last affair? Was it due to the remains of the tumor, from which she seems to have recovered? Or, since no mention is made of a re-growth from what remained behind of the tumor, which scarcely would have escaped her or her husband's notice, is it likely that the removal of the major part arrested the further growth of what remained; or was it due to some intestinal obstruction, ending in perforation, as shown by the escape of her ingesta? It is to be regretted that no better or more complete account of the case is known, as could be furnished by an autopsy, if only to throw light on what happened to what remained of the tumor.

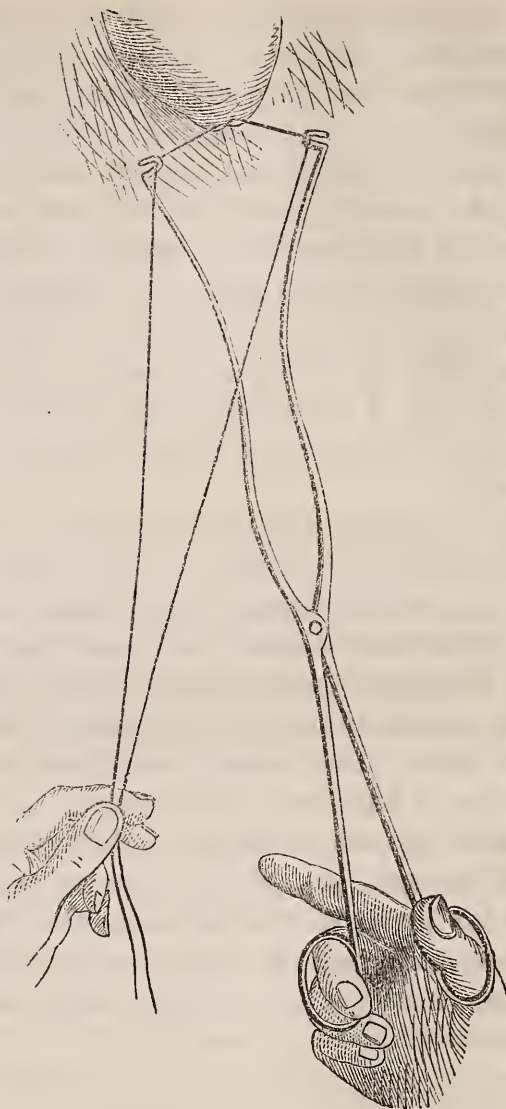
243 WOOSTER STREET.

A New Instrument for Tightening Knots in the Ligature of Pedunculated Tumors, Polypi, etc. By A. L. CARROLL, M.D.

One of the most trying procedures to manual dexterity is, as every practical surgeon knows, the operation of tightening knots in cavities not affording scope for the unembarrassed use of the fingers; as, for example, in nasal and uterine polypi, etc.

Many ingenious, but, to my mind, too complicated, instruments have been invented for this purpose; all of them necessitating the disengagement and readjustment of the ligature for each knot.

A short time ago, having occasion to ligate a pedunculated tumor on the palate of a lady of this city—a situation where “’twere well if ’twere done quickly”—I had an instrument made by Mr. Tiemann, 63 Chatham St., of which I give a drawing, which, I think, will be found in other hands (as it was in mine) to answer its object satisfactorily. The ligature being held by the blunt hooks, which are at right angles to the branches, is readily passed around the tumor and the instrument withdrawn: a single knot is tied, which is easily slid up to the tumor and tightened, the instrument operating after the manner of a glove stretcher. A second knot is tied in the same manner, and with almost as great facility and rapidity as could be achieved by the fingers in an accessible situation. It might also be of service to tighten a ligature upon a vessel at the bottom of a deep wound, where the fingers cannot be readily used.



179 NINTH STREET, Dec. 18th, 1859.

The Croup-Process. By DR. PORGES, Physician for Diseases of Children at Pesth.

Translated for the AMERICAN MEDICAL MONTHLY, from Wiener Med. Wochenschrift, No. 31, 1859.

The cause of this morbid process is still involved in much obscurity, notwithstanding the efforts of many experienced and qualified physicians. A long time may yet elapse, and many ingenious theories be

conceived by anatomists and practitioners, before the true one is established. We are justified, therefore, in removing the discussion of this mysterious process, by making the following attempt at its explanation.

The characteristics of the croup-process are:

A. The fibro-albuminous exudation as a symptom of inflammation.

B. Paroxysms of suffocation terminating in death.

A. The fibro-albuminous exudation as a symptom of inflammation.

Under this head are to be considered the following points:

1. Are the symptoms of croup those of a genuine inflammation?

a. From a clinical point of view.

b. From an anatomico-pathological point of view.

For the sake of greater clearness, I may be permitted to compare the course of croupous pneumonia with laryngo-tracheal croup.

a. From a clinical point of view.

CROUPOUS PNEUMONIA.

LARYNGO-TRACHEAL CROUP.

High fever and symptoms of inflammation from the beginning.

Fever and inflammatory symptoms are often absent in the beginning.

Local pain, local burning heat upon the corresponding wall of the thorax.

Seldom are there local pains—no heat of the larynx.

Crackling and rattling respiration; sputa yellowish, afterwards inspissated.

Sibilant respiration, bruit de drap; sputa always albuminous and coagulated.

With increasing illness the circumscribed redness of the face becomes darker, the skin drier, and the body hotter.

Face always pale, except during the paroxysm of suffocation—the skin moderately warm, or cool and moist.

The mouth hot and dry.

The mouth warm and tongue moist.

Pulse hard and full.

Pulse soft and small.

Dyspnœa general, and gradually increasing.

Paroxysmal dyspnœa, often greatest in the beginning.

Delirium.

Intelligence clear until death.

After exudation the inflammation involves the adjoining or opposite parts.

The exudation is repeatedly deposited—oftentimes for a fortnight afterwards—in the trachea and larynx, and extends in a third of the cases to the bronchii,

The more abundant the exudation, the more violent the symptoms.

The termination is different, according to the severity of the disease. In most cases, it is in recovery, and but seldom in suppuration, gangrene, &c., &c.

The exudations are usually abundant, and, with the exception of paroxysms of suffocation, the symptoms are obscure and threatening.

Recovery is rare, exudation continues until death by suffocation; the tissues and mucous membrane remaining unchanged.

b. From an anatomico-pathological point of view.

There is an abundant development of cells, a moderate exudation of fibrin and extravasation of blood.

The exudation undergoes metamorphosis.

The mucous membrane and the submucous cellular tissue exhibit changes corresponding to the condition and course of the disease. Thus we find them dissolved, thickened, softened, hardened, suppurated, gangrenous, &c., &c.

Trifling development of cells, excessive fibro-albuminous exudations, without extravasation of blood.

The exudation is found always the same, even in the cadaver.

The mucous and submucous cellular tissues exhibit no changes, or but very slight changes, which do not in the least correspond to a disease affecting tissues so deep as these.

From this comparison, it follows that laryngo-tracheal croup is, 1st. From its want of symptoms, not a genuine inflammatory disease. 2d. It is not a local disease, because the tissues of the larynx and trachea are not in the least changed by it.

We find, then, that the larynx is only the theatre or point where the disease exhibits itself, and the question now arises as to its proper seat. Is it in the blood? In severe and obstinate acute, as well as chronic diseases, it has been usual hitherto to attribute to the blood a peculiar morbid activity, producing, according to the process existing at the time, *materies morbi*, which, circulating, is at length thrown off with more or less disturbance in any predisposed locality, leaving the blood in a purified and restored condition. This doctrine of crisis or discrasia of the blood, which speaks of syphilitic, arthritic, or scrofulous ophthalmia as a syphilitic, arthritic, or scrofulous discrasia, and of croup and other inflammatory diseases as a fibrinous crisis or discrasia, &c., is now exploded.

The blood is the liquid life; that is, it contains all the principal elements of the human organism, partly in a liquid and partly in a plastic state. But all its morphologic and amorphous parts are introduced into it, and are no more the product of its activity than gold is the product of gold-carrying rivers. The blood-corpuscles come from the liver and the spleen, the albumen from the lymphatic glands, and the salts are introduced by endosmosis. Vital force, then, may be wholly confined to the restoration of the stœchiometric or elemental relations of the organism, to the preservation of the crasis or constitution peculiar to the individual, and to the equalizing, by means of exosmosis and endosmosis, the unequal plus or minus existing at any time in these several respects. The blood, therefore, in its course merely receives and delivers. It may even receive obnoxious substances, which temporarily change its composition or partly destroy it, as, for instance, carbon; but it cannot produce or develop substances either good or bad; and so far as this is concerned, there can be no question about discrasia. The idea that the blood can produce *materies morbi*, to be ultimately deposited in some irritated or predisposed organ, must henceforth be given up. The blood can carry these morbid elements to any organ, but some other organ must previously have introduced them into the blood.

In regard to croup, therefore, it follows that the blood itself cannot form, but only convey to the larynx the morbid products peculiar to this disease, and that their origin must be sought for elsewhere than in the blood.

Now, since the albuminous material, the presence of which forms the most essential symptom of the croup-process, can be produced neither by the mucous membrane nor by the blood, the seat of the disease must be in those other organs which are constantly producing and restoring albumen to the blood.

The laboratory for albumen, both in health and disease, is the lymphatic glands. The opinion of physiologists, that albumen and fibrin are used in the organism in the same form as offered in alimentary substances, cannot, in the progress now making in chemistry and physiology, be long maintained.

The circulatory system, therefore, is not solely a system of tubes, whose office is to distribute the blood-making elements introduced into them from without, which, entering into combination with various other ingredients of the food, become then qualified and capable for the maintenance of the individual organism. Doubtless human albumen is more perfectly fitted for the construction of organs which

are the media of thought, feeling, and will, than the albumen of plants.

The normal as well as abnormal production of albumen must, therefore, take place in the lymphatic glands, and in the case of croup especially, in those so largely distributed about the larynx and trachea; and the extensive network of lymphatic vessels with which these glands are connected supplies them constantly with fresh material.

Increased formation of albumen also takes place in pneumonia and other inflammatory diseases of the mucous membranes. The albuminous exudations of croup are distinguished from all similar ones, however, aside from their specific inherent qualities, by the fact that they do not undergo any decomposition, but are always expectorated, vomited, or evacuated unchanged and spontaneously, and without any oppression of breathing, if deposited, in the first instance, in bronchial tubes of the second size.

A state of increased productiveness on the part of an organ presupposes a state of irritation. Can this be proved true of the glands in the case of croup?

So far as regards the pathological anatomy of croup, the results are altogether negative. Barthe merely says, "that the bronchial glands are generally large and soft."

The proximate cause, however, of the irritation of the lymphatic glands is probably a miasm having the same affinity to these that typhoid-miasm has to the abdominal glands. The glands receive the miasm in the first instance, are affected by it, react with increased energy, and pour out, with slight symptoms of local inflammation, their products upon the larynx and other organs. If asked, Why to the larynx? we answer, that this organ, so prominent as an intermediate agent between the individual and the external world, is, at the age of from three to seven years, in full course of development, and consequently in a physiological state of excitement, and for that reason a point less likely than another to resist disease.

Cold, mechanical irritation, or chemical agencies, do not produce croup.

B. *Paroxysms of suffocation terminating in death.*

These have been quite ingeniously explained by referring them to the swelling of the mucous membrane, especially of the glottis, and to the diminution of the calibre of the trachea, from the exudation poured out upon its inner surface. The following facts, however, are

inconsistent with this explanation. Paroxysms of suffocation frequently appear before any cough is heard.

In simple laryngitis, swelling, croupy sound, and exudation appear without such attacks; they occur even when no false membranes can be detected during life, or found after death; or when such membranes are no longer found in the larynx, but in the deep-seated bronchial tubes only. They terminate without the exudation being removed; and finally, that in similar diseases, such as severe catarrhal inflammation of the lungs, extensive pneumonia, or pleuritic effusion, however severe may be the dyspnoea, no paroxysms of suffocation appear.

Then another explanation was suggested. It was said that "the muscles of the larynx are infiltrated, oedematous, and therefore unable to keep open the glottis." Aside from its incorrect physical basis, there should, according to this explanation, be no paroxysms at all, for the patient would be suffocated at the moment such infiltration occurred.

Thus, finally, croup is to be explained as something intermediate between the inflammatory and spasmodic diseases of the respiratory organs.

I consider the paroxysms as spasms, which are produced by the influence of the croup-miasm on the nerves of the neck, similarly to what we find occurring in the case of typhus.

That croup, however, is due to a miasm, is indicated by the following:

(a.) By the adynamic character of the reaction, as shown by the small, weak, and quick pulse; the somnolence; the contradictory nature of the symptoms, as shown by a cool, pale, moist skin, with absence of thirst, in a disease so severe and acute as this; from the fact that the longer the duration of the disease, the quicker become the movements and the clearer the sensorium; that sudden attacks of laryngeal breathing occur in the midst of the most perfect health; from the livid redness and gradual oedema of the parts predisposed to exudation; that death occurs without much, and frequently without any, exudation.

(b.) Epidemics are caused always by a miasm. Sporadic croup, like sporadic typhus, is also a miasmatic disease.

From what has been said, it follows that croup is a miasmatic disease, involving primarily the lymphatic glands of the respiratory organs, and localizing its products on the mucous membrane of such organs.

I may be permitted to add a few conclusions derived from experience.

1. That there exist family predispositions to croup; the disease affects lymphatic children.

2. Croup results as little from laryngeal catarrh as typhus from gastric fever. A catarrh may arouse, however, the predisposition to the miasm.

3. Emetics arrest croup if administered at the time of miasmatic infection; but can this time be ascertained with certainty?

4. There is no direct treatment of croup. We know neither the nature of the miasm, nor have we a specific antidote for it. The indirect method of cure consists in depressing the increased activity of the lymphatic glands. From the traditional treatment, with very rare exceptions, I have seen not the least benefit.

5. Emetics, as well as tracheotomy, fulfill only vital indications.

6. Depletion has just as limited an application as in typhus.

7. Cauterization can disturb the localization, and postpone, but cannot stop, the course of the disease.

8. In the milder forms of the disease, where the morbid process becomes speedily exhausted, the miasm being less concentrated, recovery may, but seldom does, take place.

9. As all miasmatic diseases may develop contagion, children should be kept from croup patients.

10. The fever is the only criterion of the course of the disease. As long as the pulse does not return to its normal standard, the prognosis is doubtful.

L. J.

Iodine as a Disinfectant and Antiseptic. By DR. MARCHAL, (de Calvi.)

At the session of the Academy of Sciences, held August 8, 1858, Dr. Marchal directed attention to the subject of Iodine, as deserving a prominent place among the disinfecting agents. Its antiseptic properties had previously been recognized and demonstrated by Duroy. Nevertheless, Dr. M. had employed iodine, at Val-de-Grace, in the dressing of gangrenous or simply fœtid sores and poisonous wounds, before the publication of the labors of Duroy. He employed it empirically, while Duroy proceeded scientifically. The treatment of suppurating bubo by injection of iodine—common with Dr. M. and Dr. Roux, of Toulon—which furnishes such fine results, is of a date anterior to 1848.

In speaking of iodine as a disinfectant when applied to wounds, the

author does not include septic wounds. In fact, an important difference exists between septicity and putridity, or, rather, fœtidity. The venom of the viper, the miasm of eruptive fevers—these are septic, but not fœtid. And, on the other hand, an exudation may be fœtid and yet not septic. The gases which Bichat breathed in the amphitheatre, and which he encountered with their fœtor, were not septic, and gave rise to no accident. One day, however—and it was a sad day for science—Bichat had worked for a long time on an anatomical preparation giving off so horrible a fœtor, that those who ordinarily assisted him in his labors were obliged to leave, and he soon experienced the symptoms of the putrid malady which ended his life. Septicity was present that day and in that body; along with the stench, there was a poison.

Everything that is claimed by the discoverers and partisans of the mixture of plaster and coal-tar, is more powerfully possessed by iodine. No other substance possesses, to the same extent, the characteristics which essentially constitute disinfectant properties. Chlorine, indeed, is a true disinfectant. It conquers both fœtidity and septicity, by changing the nature of putrescent substances through a species of oxidation or combustion. But, however energetic and instantaneous its action, it leaves nothing in reserve—it is not a preservative from subsequent decomposition. In the instant that it acts by subtracting the hydrogen from substances in a state of putrefaction, it consumes all its activity. Chlorine is active, but unstable. It is an excellent *disinfectant*; but it does not *preserve* from *infection*. Chlorine is more stable in the hypochlorites; but these disinfectants cannot be long used in the dressing of wounds, because they have a tendency to act upon tissues like caustic alkalis.

There are agents, both liquid and solid, such as the salts of lead, zinc and mercury, which possess great modifying powers. They are anti-putrefactives, in large doses. But they can only be employed, in exceptional cases, in surgical therapeutics. Aside from their toxic properties, they are either too astringent or too caustic.

Charcoal can absorb putrid gases, but it has no power of arresting decomposition. As for tarry substances, resins, essences, or hydrocarbons in general, they have been always recognized as suited for the removal of offensive odors. We have forgotten too much, in medicine, the tinctures and aromatic balsams, and detergent ointments of our old pharmacopœias. Veterinary practice does not deserve such reproach, and it may be asked if this has not been occasioned by its re-

maining empirical? But, like charcoal, these different substances do not prevent putridity.

The true antiseptic is that which prevents the appearance of putridity, destroys it when already existing, and prevents its reappearance. Such an antiseptic is iodine. Dr. Marchal employs it in the form of solution, in an aqueous solution of an iodide. The aqueous solution appears to be more efficacious than the alcoholic, since there is produced, with the use of the latter, a constriction of the tissues, which only admit of slight penetration of the liquid charged with the antiseptic. The alcohol also coagulates albumen, which would likewise retard the absorption.

The iodide solution can be injected into sinuous portions of sanious and fœtid ulcers, which cannot be done with a pulverulent or semi-solid substance. It is only necessary to moisten the dressing from time to time, without the necessity of uncovering the ulcer several times a day—an advantage which will be properly appreciated by surgeons. In hospitals, the iodine escaping from the apparatus, saturated with its solution, will serve to purify the air of the wards. Dr. M. thinks there is no condition so favorable for the sick and wounded, under ordinary circumstances, or in times of epidemics—especially those of a typhoid or typhus character—as a continuance in an atmosphere suitably iodized. The miasm arising from crowded quarters, more fatal to armies than fire or sword, most probably has its antidote in iodine.

Dr. M. would indeed say a *certain* antidote, for he admits the important opinion of Duroy, that *iodine combines with all ferments, rendering the unstable molecules that constitute them more stable, and arresting the movement towards decomposition, even in the presence of the atmosphere.*

There is a ferment in typhoid fever, and Dr. Magonty has just successfully employed iodine in this pyrexia, as Marchal, imitating his example, has also done. The same result has attended its use in puerperal fever. There is a ferment in angina; and Dr. M. had a case of a little girl, aged six years, attacked with guttural diphtheria at the close of an attack of scarlatina; the false membranes, although very thick, dense and adherent, were detached in less than forty-eight hours, and a cure was effected in eight days from the commencement of the iodine medication. The same effect of iodine is known in syphilis and purulent infection.

Chatin has shown what evil may result from the diminution or absence of iodine in the air and in our drinking water; and it is well known what good may result from the presence of a small quantity of

iodine added to the air of the rooms we occupy, especially when sick are contained in them. A very remarkable effect of the iodine solution, employed in the dressing of sores, is to attach itself, in some manner, to portions of tissue which seem devoted to destruction: as in cases of very large anthrax, attended with isolation of considerable portions of the cellular tissue. Finally, iodine is not only an antiseptic, but it is an admirable agent for cleansing sores, for hastening granulation, and prompt and satisfactory cicatrization.

Application.—Dr. M., by briefly narrating a recent case, in which he used it, communicates the mode of its application and the dose. “A man, 78 years old, who was accustomed to drink freely of wine, and often of brandy, at his meals, was seized with an inflammation of the foot, the gangrenous character of which was unsuspected. In a few days, the whole foot became black. The sole was convex, and sonorous on percussion. There was no fever and no loss of appetite. By saying there was no fever, it is meant that there was no excess of heat. As to the pulse, it was of astonishing slowness—44 to 49 beats to the minute, and never more—but it was full and heavy. The urine contained a notable excess of uric acid. The patient was put on bicarbonate of soda, and the gangrene, which had already invaded the lower part of the leg, was arrested. At the end of about a month, a sanious ulcer established itself between the living and dead parts; this ulcer gradually deepened, and, to aid the elimination, I cut, from time to time, some of the tendons and ligaments. In this way the articulation of the foot with the leg became open. This went on, until the commencement of the excessive heat in July. The foetid odor exhaled from the foot was horrible. One day, while raising the apparatus, I experienced a violent constriction at the throat, and during the whole day I suffered with dry, turgescient lips, and with prickling sensations. Two women, who nursed the patient, had vomiting and diarrhœa. Up to this time, Labarraque’s hypochlorite and a concentrated solution of nitrate of lead had been employed. The opportunity was favorable for testing, comparatively, iodine. I made a solution as follows:

R.—Iodine,	grammes, xx.
Potass. iodid.,	“ xxv.
Aquæ distillat.,	“ ccxxv.

Each day, at the dressing, I poured into a flask, of the capacity of a litre, containing common water, about one-twentieth of this solution, nearly eleven grammes, representing one gramme of iodine; and this iodine water was poured out slowly and continuously during the

changing of the apparatus, and the parts were covered with compresses saturated with the disinfectant liquid, which being freely moistened with the same, from time to time, remained in position until the following day. I employed, also, this liquid by injection, since there were established sanious passages along the leg; one along the anterior tibialis, which the sphacelus had attacked. Furthermore, I touched with the pure solution the most sanious portions, especially the portions of the bones. Thanks to this novel dressing, the fœtor soon ceased, to the great satisfaction and surprise of those attending or visiting the patient.

As I only report this observation, with reference to disinfection, I might stop here, but it is interesting to know the termination of the case. Nearly three months had passed away, the foot had been detached, and the natural elimination of the lower part of the bone of the leg, which jutted out of the sore, was being expected. The sore was granulous, roseate, and in good way towards cicatrization from the circumference to the centre. The animal functions were admirably accomplished, and we were awaiting a cure, which, considering the age of the patient, and the nature of the lesion, would have been remarkable. The patient was full of confidence and hope. He had suffered from a catarrh for years, and had had attacks of cough, almost suffocating him, much to the terror of the assistants. One day, as I arrived to dress the leg, there was a prolonged choking cough, he became livid, almost black, made some convulsive movements, and fell back on his pillow. The left jugular vein, of enormous size, was exposed. I plunged a bistoury in, and two pounds of black blood flowed out; the blood did not coagulate even at the moment of death. But all was vain, the man was dead.

In conclusion, I would express a desire that iodine be experimented with comparatively, at the same time, as the other agents proposed for the disinfection of ulcers.—*L'Union Médicale*. L. H. S.

Hygienic Treatment of Diabetes Mellitus, or Glucosuria. (From the French of Bouchardat.)

This paper contains the results of the labors of Bouchardat, for more than twenty-five years, on the most important portion of the treatment of glucosuria.

Food.—The first rule to be observed in the alimentation of a patient affected with glucosuria is the suppression, or at least a large

diminution in the quantity, of *faeculent* articles; such suppression or diminution constitutes the basis of the treatment. The following should be prescribed, as far as possible: ordinary bread made either of wheat, rye, or barley; pastry of rice, corn, or other grains; potatoes and potato-starch, arrowroot and other forms of starch; vermicelli, semola, macaroni, &c.; leguminous seeds, such as kidney-beans, peas, lentils, and common beans; chestnuts, buckwheat; sweetmeats and saccharine drinks. The exclusion of saccharine food from the regimen should be absolute, and continued for a greater length of time than that of *faeculent* articles. The use of milk is unfavorable.

The articles of food which are allowable are very numerous. Meat, poultry and other kinds, can be recommended; and they can be prescribed, boiled, broiled, or roasted, or cooked in any other way, with all the condiments that may stimulate the appetite; avoiding, however, the use of flour in the sauces. Liver should be prohibited, as well as gelatinous preparations. Fresh and salt-water fish offer a rich variety for the table of the patient. Other animal food, such as oysters, muscles, snails, lobsters, prawn, frogs, &c., may be employed every day with advantage. Eggs, in all the forms that culinary art has devised, are very useful. Although milk is but little suited for glucosuric persons, yet good fresh cream is, on the other hand, allowable. Cheese of all kinds should be forbidden. The list of legumes allowable is tolerably large: it need only be remarked that fatty bodies (oil, butter, grease, &c.) should be employed in more than ordinary quantity in their preparation; that, in the sauces or dressings, the yellow of eggs and cream should replace the proscribed flour; and that, whatever they may be, those legumes should always be avoided which are very *faeculent*. Mushrooms and truffles may be employed.

From time to time, in moderate quantity, the following fruits can be used: apples, pears, cherries, raspberries, strawberries, pine-apples; but always without the addition of sugar, and only when the urine is not saccharine.

Before speaking of beverages, we must notice a matter of great importance—the replacement of bread and pastry. Patients affected with glucosuria complain bitterly of being deprived of bread and *faeculent* food; if the desire for such can be diverted, it is always well. For seventeen years that I have employed gluten bread, its usefulness has not been denied; and it is an adjuvant which has been very important in a large number of cases of glucosuria. Some have pretended to find in gluten bread a cure for glucosuria; such was never my opinion. I sought simply for an article of food which might replace bread with-

out having its inconveniences for patients, and I believe this is such an article.

Some patients support, without any great annoyance, abstinence from bread and starch food; for such gluten bread is not required, but, I am bold to say, they are exceptional cases. For such, one or two cakes, in the course of the day, answer instead of bread. Some, indeed, whose attack is but slight, can, by simply diminishing the amount of starch ingested, or by the employment of alkalies or energetic exercise, cause a return of the urine to its original condition: such have no need of gluten bread. But these cases are by no means serious, and are infrequent.

Beverages.—Wine plays an important rôle in the treatment of glucosuria, and I firmly believe that I have rendered a service just as great to such patients, by substituting alcoholic beverages for fæculent articles of food, as in demonstrating that abstinence from such articles was indispensable to them. The old red wines of Burgundy and Bordeaux are preferred; yet all red wines, that are rather astringent than acid or sweet, suit very well. As regards quantity, I do not give less than a litre (about one quart apothecaries' measure) in twenty-four hours; and for vigorous men, who exercise much, it is sometimes proper to give still larger quantities. Beer is very unfavorable, and the dextrine which it contains explains this action. I proscribe saccharine *liqueurs*, but I grant freely the use of a small glass of rum, brandy, or Kirschwasser, at the principal meal. Coffee is useful for almost all patients affected with glucosuria, and, if not contra-indicated, I prescribe at least one cup after the principal meal. It should be taken without sugar; but a little rum, brandy, or cream may be added. Some patients take two or three cups a day.

Wine-and-water is preferable to all tisans. Sometimes it is well to take an infusion of hops or of bitter vegetables. Under any circumstances, it is well for patients to drink with great moderation. A quart of pure Bordeaux wine will allay the thirst of the day, if the regimen suggested is followed.

Lemonades, &c., sought after by patients with much desire, are very detrimental; they do not appease thirst better than cold water, and they contribute to the saturation of the free alkali of the blood, which prevents, as Chevreul has long since proven, the prompt destruction of combustible alimentary material incessantly introduced, into the circulatory apparatus, from the digestive apparatus. I forbid them absolutely. Mialhe has also insisted, with as much earnestness as reason, against the use of acid drinks.

Patients should drink small quantities at a time; large quantities of liquid ingested at once may contribute to keep up the abnormal secretion in the stomach, with reference to which I have so much insisted. They should always eat slowly. This is for a double reason: first, to avoid indigestions, which are to them more unfortunate than to other patients; secondly, to favor the return of the stomach to its ordinary dimensions. To attain this end, also, we may employ a band of flannel, slightly tightened, about the region of the stomach.

Clothing.—I have shown that sudden chills were pernicious to patients afflicted with this disease. Hence the propriety of employing good flannel underclothing. This also serves to re-establish the functions of the skin, which should be active. Hence, I always prescribe flannel garments, covering the whole body, so as to keep up gentle moisture of the skin.

Exercise.—Patients who have had the disease for some time experience spontaneous weariness—a sensation of debility, sometimes accompanied with pains in the thighs, legs, and articulations, which are increased by the slightest work or smallest exertion: it is difficult to require them to exercise, but as soon as, from a suitable regimen, their forces begin to return, they must use exercise. Walking, exercising the whole body by some manual labor, or some gymnastic recreation, are of undoubted utility. The exercise should be progressive: if too violent, it will determine injurious curvatures; neglected, it will retard the complete establishment of the strength, and, consequently, the cure.

Sea-bathing and Hydrotherapeia in the Treatment of the Disease.—River bathing, when it is aided by exercise in swimming, is useful; but the advantages of sea-bathing, when it can be supported, are more constant and greater. To determine diaphoresis in difficult cases, I have sometimes employed hydrotherapeia; but the patients should be continually under supervision in the use of such treatment, as, when badly employed, it may produce serious accidents; but when wisely directed, and seconded by a regimen intelligently adapted, it has rendered me excellent service.

It is evident that the treatment should only be gradually abandoned, and when the glucose has disappeared from the urine. It is proper always, *then*, to augment the quality and quantity of the caloric articles of food. Good beer may be taken after each repast; three or four spoonfuls of cod-liver oil during the day: these are the articles which I would require during the use of sea-baths, or the employment of hydrotherapeia. There must be more caloric: it is neces-

sary that a supply of calorifacient materials at least equal to the loss should be furnished.

By way of *résumé* as to the indications and contra-indications for hydrotherapeia in this disease: When the glucose disappears, or is diminished, so that fæculent materials can be more largely employed, and there is daily increase of strength, hydrotherapeia and sea-bathing are most efficacious methods of treatment in glucosuria; when, on the contrary, under such treatment, the glucose increases, the strength diminishes, &c., these methods aggravate the disease: for we are abstracting caloric from a machine which is already too much impoverished.—*Clinique Européenne*.

L. H. S.

Rabies as an Epizootic in Early Ages. By DR. HUSEMAN.

Rabies has found, among the large number of monographs which in the course of its history have been appropriated to this mysterious disease, some special historians. Among these may be mentioned Krügelstein, on account of his "History of Rabies Canina and Hydrophobia," Gotha, 1826, which deserves all approbation for the labor spent on it. It has struck me, that all writers on Rabies canina take their notices of it from modern times—Krügelstein himself citing those only from the eighteenth century. And yet there were cases in earlier times, which came under the observation not only of contemporary medical men, but also of the chroniclers of those days.

Thus, in the first part of a familiar historial book—"Theatrum Europæum," by Joannes Philippus Abelinus, (or Gottfried,) Frankfurt, 1634—we find the following, on page 712: "In addition to all the distress and war, and great famine, which extended over almost every place at this time, still another plague appeared, from harvest to November, 1621, in Rheinthal and the territory of Appenzoll, and the surrounding country. For, during the previous summer, the bodies of many thus dying having been thrown into the Rhine and then cast upon its shores, the dogs fed upon them; on which account they became mad, and afterwards attacked the cattle in every direction, and destroyed them. The loss of the people in this way was estimated at 25,000 gulden. At last they were obliged to turn out with spears, rifles, and poles, and destroy every animal thus affected.

"At this period, the trees, as in spring, both in these and in other

places, blossomed, and the birds laid their eggs and hatched forth the young.

"In Siebenbürgen the dogs also ran mad, and not only bit cattle, but even men, causing them to go mad; so that they were obliged, with great labor and grief, to put such infected men and cattle, along with the dogs, out of the way, to prevent still further misfortune and peril, which could not otherwise be avoided."

It is worthy of remark, that Siebenbürgen was specially affected, since, according to Becher's statistics of the Austrian Empire, it still suffers, most of all the provinces of the empire, with rabies. That, in the year 1621, men affected with rabies "were put out of the way to prevent still further misfortune and peril," is perfectly credible, when we think of the manners of the age and the country.

The erroneous idea, that rabies canina arose from the devouring of dead bodies, was extensively believed in the seventeenth and eighteenth centuries, and even finds an expression in the laws of the time. Thus, in the "Laws of the Principality of Lippe," vol. iii., 10, the following circular may be found relating to the interment of dead cattle:

"As it is reported that the required interment of dead cattle has been neglected in some parts of the country, and in others is not made deep enough, so that the dogs can dig the carrion out of the earth, eat it, and become mad, the authorities will take care to have a more strict compliance with the edict of May 4, 1779, and bring those violating it to punishment."

That, by the consumption of carrion, a true epizootic might be produced in dogs, which should have a great resemblance to contagious rabies, later investigations have shown.

In the other volumes of the European chronicles of Abelinus (the work is in sixteen volumes) which I have examined, I find no record except that of this epizootic among the dogs in the seventeenth century. But the misdeeds of wolves, that had gone mad, are recorded in various years. Thus, in 1651, it is stated that in Cologne, on March 31, a wolf, having lately gone mad at Ververs, destroyed twelve men before he could be slain. In his throat there was found a large piece of fresh human flesh, which might have been from a soldier of Lothringia, as these were lying unburied in quantities in that region. In the woods or forests between the Italian States of Pisa and Luca, six large, fierce wolves were seen together, who had become so famished that they not only attacked sheep and other flocks, but also their shepherds and herdsmen, destroying twenty of the latter. Hence the Grand Duke of Florence dispatched his upper master

of the chase, with all his dogs and 400 soldiers, to exterminate these wolves, but they were not to be found.

Similar wolf stories are related of Bohemia, Erfurt, and Touraine, in the years 1652, 1653, and 1671, which cannot here be discussed, since they possess no special interest, and the proofs alleged merely illustrate the characteristics of the style employed in the "*Theatrum Europæum*." I prefer to add some notices on the mention of rabies in the Bible and the Talmud, for which I have to thank mostly the kindness of my learned friend, Rabbi Dr. Fahrenbach, of Detmold; remarking, at the same time, how much to be regretted it is that the literature of Biblical and Talmudical medicine is so inaccessible.

Although it may be asserted that general rabies is not mentioned in the Bible, yet it cannot be denied but that it is referred to in special passages. For example, in Proverbs, xxvi. 11: "As a dog returneth to his vomit, (as a dog eateth that which he has vomited forth, according to Luther's translation,) so a fool returneth to his folly." The reference is here undoubtedly to dogs peculiarly affected, so that they adopt an unnatural course, which becomes evident by a comparison with the parallel passage, 2 Peter, ii. 22, where another animal is brought forth as acting in a similarly strange way: "The dog is turned to his own vomit again; and the sow that was washed to her wallowing in the mire."

A reference is also had to a morbid condition of the dog in Isaiah, lv. 10, 11: "They are all dumb dogs, they cannot bark; sleeping, lying down, loving to slumber; yea, they are greedy dogs, which can never have enough." The semiotics of madness give strength to the opinion advanced, that rabies is referred to in this passage; for aphony and blind, fearless, snapping habits are to be looked upon as pathognomonic in rabies. Hence the expression, "*Hosim schochbim*," which appears in this passage, "*Klabim illmim*" (dumb dogs) having been used before. *Hosim* indicates, in any case, seeing fantastic images in sleep, and this use is made of it and the series of words which come from it in the Jewish philosophers and religious teachers of the Spanish school. With the last, "*Hasajah*" signifies directly religious fanaticism, madness, &c., &c. An anonymous savant of the Spanish school explains this passage as referring to a disease of the fancy of those who speak in their sleep; whence dumb dogs, those who have fed on carrion, that is, who are rabid, seem to afford an illustration.

The matter must remain in doubt as to this passage, since the reference may be as well to an epidemic disease as to rabies. These are

all the references in the Bible that seem to point to rabies among dogs. Still less is contained of rabies among other animals.

In the Talmud the following appears about mad dogs—Tract. Joma, 83 and 84: "Whosoever has been bitten by a mad dog, to him may be given to eat, as an antidote, the peritoneal covering of the liver." The majority of the rabbins do not hold to this interpretation, because, as Maimonidas explains it, this is no special and reliable antidote. But it is equal to other sympathetic medicines mentioned in the Talmud.

The following symptoms of madness in the dog are given in the same book: open mouth, with saliva flowing from it; badly-smelling ears; tail hanging down, inclined to a side; taking the side of the path in his course.

As a curiosity, I may close this historic trifle with a fact, communicated to me by Fahrenbach, which appears in a Hebrew book of the learned Spaniard, Catalano, published in Venice, 1547. The madness of a dog is said to produce a peculiar effect on the composition of his urine; and the author alleges that *little dogs can be seen in the urine of those who are bitten*, which is most assuredly a capital testimony in favor of the utility and applicability of uroscopia.—*Deutsche Klinik*, Sept. 3, '59.

L. H. S.

MONTHLY SUMMARY OF MEDICAL JOURNALISM.

By O. C. GIBBS, M.D., Frewsburg, N. Y.

New Method of Reducing Strangulated Hernia.—In the *Lancet and Observer* for November, Prof. B. F. Richardson, of Cincinnati, reports two cases of strangulated hernia reduced by a new method. In each of the two cases reported, Prof. Richardson employed the usual manipulations for more than half an hour, without success. He says now, "Reflecting upon the mechanism in the *production* of hernia, I determined upon an expedient directly in opposition to the leading injunction of authorities. The patient was put upon his elbows and knees. Grasping the hernial tumor between my fingers and thumb, I pushed it steadily and firmly towards the inguinal ring; *he being at the same time directed to take a full inspiration and then make a strong and continuous expulsive effort, so as to distend the abdominal muscles as much as possible.* Between, as well as during the expulsive efforts, the

tumor was steadily pressed towards the ring. The reduction took place at the *second* effort. The time occupied was not over two minutes."

The philosophy of this plan is, that the expulsive effort distends the ring, and the external pressure has only to a little more than counter-balance this to accomplish the reduction. Prof. Richardson is of opinion that "this mode of management will reduce any abdominal hernia that is reducible without a surgical operation." "It is at least," he says, "time enough for chloroform or the knife if this should fail."

Nursing Sore Mouth—A New Cure for.—Dr. Armor, of Dayton, Ohio, reported, before the Montgomery County Medical Society, (see *Lancet and Observer* for November,) an interesting case of nursing sore mouth cured with the *syrup of the hypophosphites*, after a failure of "all the usual remedies, such as iron and quinine, chlorate of potash, etc., together with a nutritious diet." . . . "The tenderness of the mouth, the debility, the distressing sensations in the stomach and bowels, the paroxysms of nervous agitation, and the peculiar pale and languid appearance of the countenance, all rapidly disappeared under the use of the remedy."

Dr. Armor said that he used this remedy at the suggestion of Dr. J. C. Reeve, also of Dayton. Dr. Reeve briefly stated the facts of a similar case in which he had used the remedy, and concluded by saying that he considered his case "the strongest evidence in favor of a new medicine that could ever be furnished by any *single case*."

Dr. Armor used the remedy combined with Sime's elixir of Peruvian bark.

Transfusion in Phthisis.—In an able paper of considerable length, in the November number of the *Lancet and Observer*, Dr. R. E. Haughton, of Richmond, Ind., recommends transfusion of blood in tubercular phthisis. Theoretically considered, benefit might be expected from this expedient; but the Dr's recommendation lacks an experimental basis. It seems to us that, to be beneficial, transfusion would have to be so frequently performed, and through so long a period of time, as to become decidedly objectionable.

Hypertrophy of the Heart.—In the *North American Medico-Chirurgical Review* for November, Prof. Austin Flint has an article on Cardiac Hypertrophy and Dilatation, in which the following practical remarks are made: "Practitioners have aimed to diminish the hypertrophy, or prevent its further progress; and for this end potent measures have been resorted to, viz.: copious bloodlettings and other

methods of depletion, low diet, and as much quietude as possible. So far from these objects of treatment being desirable, they conflict directly with conditions on which the comfort and safety of the patient depend. The practitioner should strive rather to maintain the hypertrophy, and to govern its increase in proportion to the increasing impediment to the circulation due to progressive valvular lesions. The existence of hypertrophy does not call for measures to lower the powers of the system and weaken the heart, but, on the contrary, the body should be well nourished, and the vigorous action of the ventricles promoted. Not only are depletory and debilitating measures uncalled for by the hypertrophy, but an opposite plan of treatment is indicated, viz.: a good diet, tonic remedies, and exercise, so far as it can be taken without a sense of discomfort. It is somewhat difficult at once to receive practical views diametrically at variance with those which have hitherto guided medical practice, under the sanction of high authority; but clinical observation, as well as sound pathology, shows the importance of hypertrophy as a conservative provision against the secondary and remote evils arising from valvular lesions."

These opinions are not altogether new, but we are of opinion their importance should be more extensively conceded and acted upon.

Dysentery.—In the *Semi-Monthly Medical News* for November 1st, Dr. W. L. Sutton, of Georgetown, Ky., has an able article upon the above subject. The article is but part of a *report* upon the Epidemics of Kentucky. In regard to treatment, we consider Dr. Sutton's remarks eminently judicious. We make but one quotation. "Opium occupies a larger space in the treatment of dysentery than any other remedy. It is used in various ways and different-sized doses. In many mild cases, it is sufficient to introduce opium into the rectum after each stool. This will frequently cure in twelve or twenty-four hours. In many severe cases, a dose of four or five grains of solid opium, given at the onset, will cut the disease short. In some recent cases of most excruciating sufferings, with very frequent dejections, I have seen a tea-spoonful of laudanum in two or three table-spoonful of ice-water thrown into the rectum, act like a charm, in relieving present distress. To be sure, I have seen the first injection thrown out in a few moments; but a second, administered immediately, has rarely, if ever, failed to quiet the rectum. When the present suffering has been less severe, but the tenesmus considerable, a full dose of laudanum, say sixty to one hundred drops, with an ounce of epsom salt, is a very good prescription. The opium quiets the bowels for

ten or twelve hours, when the salt operates, bringing free liquid stools, without griping."

This has been essentially the plan we have pursued for several years past, and that which has given satisfactory results. We believe the intestines should be thoroughly evacuated occasionally in dysentery, and we know nothing better to accomplish this than epsom salts in solution, to which appropriate doses of elixir vitriol are added. We prefer to administer the salts in divided doses, just sufficient to secure about two fæcal evacuations daily. We are confident the salts and the acid have a healthful influence over the inflammation, aside from the cathartic action. Opium should be administered by the mouth and per rectum conjointly. The propriety of cathartics in dysentery is more generally admitted now than formerly; yet we are confident that many preferably use astringents.

Dr. L. P. Gebhard, of Philadelphia, makes use of the following formula as a cathartic in such cases:

"R.—Hydrarg. chlorid. mitis., gr. xij.
Pulv. aloes, gr. vj.
Pulv. rhei, gr. ij.

Made into pills. To be taken at one dose." (See *Medical and Surgical Reporter* for May 7th and 21st, 1859.) He says he has pursued this treatment for 24 years, with most decided success, and now no longer considers dysentery a formidable disease.

We trust it will not be considered inappropriate to refer here to the treatment of dysentery not long since proposed by E. S. Docker, Esq., Surgeon to the 2nd Battalion of the 7th Royal Fusiliers. He gives ipecacuanha in large doses, and reports 49 cures in 50 cases. He says: "I gave it in doses ranging from 10 to 90 grains; rarely less than 20 grains. The action of these large doses is certain, speedy, and complete; and truly surprising is sometimes their effect. In no single instance has failure attended this medicine, thus employed." . . . "In all constitutions, robust as well as delicate, under all circumstances, the result is the same." . . . "The evacuations, from being of the worst kind seen in dysentery, have not gradually, not by any degrees, however rapid, changed for the better; they have ceased at once, completely." (See *Braithwaite's Retrospect*, vol. xxviii., p. 86.) The stomach is made to retain these doses by giving a drachm of laudanum, and applying a sinapism over the stomach, half an hour before giving the ipecacuanha.

Treatment of Pneumonia.—In the *Savannah Journal of Medicine* for November, Prof. Juriah Harriss, one of its editors, has an interest-

ing article upon the above subject. Perhaps the most decided innovation in his plan of treatment is the early administration of quinia in full doses. He says: "Quinine, in large doses, is a diaphoretic as well as an anti-periodic; a nervous sedative as well as arterial; producing a gentle perspiration and moisture of the skin. In the first stage of pneumonia it relieves the congestion of the lungs, as it does general visceral congestion in congestive fevers. It equalizes the circulation by its sedative effect upon the nervous system. With this view of its action, we prefer it to venesection in the treatment of pneumonia, as met with in malarial districts." Dr. Harriss speaks highly of blisters in pneumonia; also of expectorants. As an expectorant he prefers the following:

"R.—Pulv. ipecac.,

" squills, ää., 2 grs.

Every two hours, in syrup, gum-water, or flaxseed tea."

Summing up, he says: "If the case is seen a few hours after the attack, I frequently administer an emetic of ipecac, particularly if the attack comes on soon after a meal; next I direct a blister to be applied, as before specified, keeping it open, or allowing it to heal, according to circumstances. I, at the same time, direct quinine, xx. grs., in four powders, one every hour, or two hours, as the case may be. When this has been taken, the expectorant powders are administered. If a remission occurs the next day the quinine is repeated, and so on for several days. The expectorant powders continued during the intervals, or during the exacerbation." In malarious regions of the South and West, many physicians might be willing to concede the propriety of this treatment. We are, however, of opinion that in non-malarious regions the majority of physicians prefer the bloodletting, antimony, and calomel treatment. We are confident that an improvement can be made in the old plan of treating pneumonia, whether in malarious regions or not. In the field of observation and practice which we have occupied for the last four years, a case of intermittent fever has never been known to occur; and yet, in a large majority of cases, we have found quinine by far the more preferable treatment in pneumonia. At the time we first brought quinine to bear in the early treatment of pneumonia, we supposed we were acting without authority; but, subsequently, we have learned that our plan of treatment had been anticipated. In the *Lancet and Observer*, for October, 1858, we published an article on the treatment of pneumonia with quinine, in which allusion was made to thirty cases thus treated, during the preceding winter and spring. In these cases, of all ages from a few

months to 86 years, that article says: "All had sulphate of quinine, and, in every instance, with the effect of lessening the frequency of the pulse, promoting perspiration, and loosening the cough;" not a single case proved fatal, and two only protracted beyond the tenth day. We administered quinine in from two to four grain doses to an adult, in combination with from 5 to 8 grains of Dover's powder, every four hours, without interruption. Conjointly with this, we used blisters to the chest, and administered expectorants. Of the expectorants we preferred ipecacuanha, bloodroot, and senega, alone or combined, and with or without brandy or opium, as the case seemed to require. Since our article, to which we have referred, was published, we have received an essay, by Dr. T. J. Cogley, of Madison, Ind., published in 1857, in which the following language occurs: "I would, if I saw my patient *early*, provided the indications were decided, bleed; and I might, if there were much pain and tenderness in the side, cup or leech; and it would doubtless be proper to evacuate, by mild means, the bowels; but I would always, either with or without prescribing these means, according to circumstances, *give quinine* and capsicum, from three to five grains of each, every three hours, at whatever period of the disease."

It is not our opinion that the early administration of quinine is suited to all cases of pneumonia, but it is well for the young practitioner to know that bloodletting and antimony are not the extent of our medical resources in such cases.

Delirium Tremens.—In the *Clinical Report of the Savannah Hospital*, as reported by Prof. Harriss, and published in the above-mentioned journal, the reporter says: "The cases of delirium tremens were treated with *cannabis indica*, in six or eight grains of the extract, every two or three hours." He says: "The result was very satisfactory. From observation in private practice, I am satisfied that the tincture is preferable to the extract. The latter is difficult to dissolve, and a longer time is required to place the patient under its influence. The tincture takes effect rapidly; one tea-spoonful contains over four grains of the hemp. In this form I prescribe one tea-spoonful every two hours, until sleep is induced. I am convinced that it is the best treatment in this disease; far better and safer than chloroform, and preferable to opiates and brandy, or the cold douche. My friend Dr. J. E. Godfrey, of Savannah, was the first to use the remedy in this affliction."

In the treatment of *dysentery*, Prof. Harriss prefers epsom salts to any other cathartic. In *remittent fever*, he says, five grains of calomel, with twice as much quinine, "will purge the patient as much as double the quantity of calomel given alone," and with better effect.

Vesico-Vaginal Fistula.—In the *Chicago Medical Journal*, for Nov., Prof. Brainard, in his surgical notes, reports an operation for the above affliction, which, in its results, was entirely successful. Prof. Brainard says: "The operation was performed in the manner used at present. We have been in the habit of using the lead wire for patients long before Dr. Sims performed his operation, and as it always succeeded in favorable cases, we were not disposed to abandon it."

Treatment of Peritonitis.—In the *New Orleans Medical News and Hospital Gazette*, Prof. Austin Flint reports a case of peritonitis, successfully treated with opium and enemata, in which the bowels were allowed to remain unmoved for eleven days. From his remarks we make the following extract: "Prof. Clark has rendered a great service to practical medicine, and to humanity, by establishing the merits of this method of treating acute peritonitis. If pursued judiciously and boldly, a large proportion of the cases which, judged by former experience, would have otherwise ended fatally, are brought to a favorable termination. The greater success in the management, however, it must be confessed, may be in part owing to the discontinuance of measures which were injurious. In this light we must regard bloodletting and cathartics. As regards bloodletting, a fair and ready way of placing before the mind its theoretical applicability to the treatment of peritonitis, is to consider the extent of surface inflamed in this disease, and the loss of blood-constituents involved in the exuded products of inflammation. The condition of a patient attacked with peritonitis is not unlike that of a person after a scald or burn, extending over a large portion of the external surface of the body. The symptoms are analogous in the two cases, and death in both occurs by asthenia. Bloodletting is as appropriate in the one case as in the other. Of cathartics, it is only necessary to say that they conflict with the first and great indication in the treatment of all inflammations, viz.: to maintain, as far as possible, repose of the parts inflamed. The value of opiates in cases of peritonitis consist, in fact, of the arrest of the peristaltic movements of the intestines. These remedies have held so prominent a place in therapeutics for the last half century, that it requires some moral courage on the part of the practitioner to permit the bowels to remain constipated for a fortnight or longer, and to resist the importunities of patient and friends for opening medicine."

The above opinions are so in accordance with those we have long since held, and several times advocated in print, that we quote them

with pleasure. The advice of Prof. Wood, in his work on Practice, and that of Prof. Dickson, in his Elements, is not in accordance with our views of the proper treatment of peritonitis. We have lost but two cases of this disease in eleven years, and both those occurred early in our experience, in both of which, contrary to our better judgment, counsel prevailed upon us to give cathartics. We cannot help thinking that a great and favorable change would be made in the mortality of this disease, were cathartics to be entirely ignored in the treatment of the great majority of cases.

Strychnia in Dyspepsia.—In the *Medical and Surgical Reporter*, for November 12th, we reported a case of dyspepsia, cured with strychnine. We see no impropriety in giving the substance of the case, which to us was one of interest. “Mr. K., aged 40 years, had been ailing for about two years; was now considerably emaciated; his skin dry, and sallow; his tongue furred, and bowels costive. He was greatly discouraged, irritable in temper, melancholy, and desponding; his appetite was capricious; his sleep disturbed, irregular, and unrefreshing. He had been under treatment most of the time since his illness commenced. Regulars, homœopaths, eclectics, and all the traveling physicians that had perambulated the country in the time, had all had an opportunity to try their skill upon him.”

After more than three weeks of treatment, that accomplished but little, we put him upon strychnine, in one-sixteenth of a grain dose, three times a day. “At the end of a week, the patient said he felt better than he had done in a year, and was satisfied the last prescription was exactly what he needed—we had not informed him of its nature. The bowels were regular, and the mind cheerful and hopeful. We have several times observed this mental change under the administration of strychnia. The treatment was continued about four weeks longer, when the patient was discharged, cured. He is now in good health and flesh, and is daily employed in active farm labor.”

Similar, in one or two points, to the above case is another, which we have now under treatment. The patient is a female, aged 47 years, and has been troubled with costiveness for twelve years. She is quite thin, and looks like one addicted to the use of opium, but is free from that habit. She has been taking strychnia for two weeks, and to-day informs us that she has derived more benefit from this prescription than from anything else she has ever taken. Her bowels are now quite regular, though she has not taken any laxative medicine since she commenced the use of the strychnia. We have several times

previously derived the happiest effects from strychnine in certain forms of costiveness.

Tuberculosis.—An interesting discussion upon this subject was had before the Philadelphia County Medical Society, and reported in the *Medical and Surgical Reporter*, for November 12th. We do not propose to give a synopsis of this discussion, but simply quote a remark from Dr. Condie. "Tuberculosis is found to be confined to no age, sex, or condition in life; and to pervade alike all countries, under every variety of climate. By recent statistics it has been shown, however, that one form of tubercular disease—that of the lungs—is of much more rare occurrence in a *cold, dry, equable climate*, than in any other; that consumption is scarcely known among the permanent inhabitants of such climate, while even those strongly predisposed to the disease are said to have their predisposition eradicated by a residence within it." These are well-known facts; and yet, we think, not sufficiently appreciated. Physicians continue to send their consumptive patients to tropical climates, as though they supposed the warm air of the South was impregnated with healing balsams. We have been somewhat observing, and must confess we never saw a patient, who was really suffering under pulmonary tuberculosis, that returned improved from a sojourn in a tropical climate. So far as we have observed, all have died there, or returned worse than they went. That tubercular diseases have their origin in a deficiency of vital force or nerve-energy, and a weakened digestive and assimilative force, we have no doubt. The *Materia Medica* has no tonic or stimulant for either equal to the cool, dry climate of the North. Under the influence of such a climate a man feels imbued with new energies; he feels a desire for hearty food, and a capacity to digest it before unknown. Many facts could be cited in support of these opinions; but we refer only to the last that has fallen under our observation. Prof. E. D. Fenner, of New Orleans, has, during the past summer, traveled 7,500 miles in search of health—has visited all the fashionable places of resort for invalids and pleasure-seekers. In the region of St. Paul, in latitude 75°, he found that for which he was in search. He says: "Description can impart no idea of the happy sensations of the invalid, who breathes the cool and bracing air which comes across those vast prairies from the Rocky Mountains." After describing the accommodations and the health and pleasure imparting resources for the invalid, he says: "Such is the life for the invalid who has strength sufficient to pursue it, and in Minnesota we have, day after day, lived on the prairies and the lakes without ever feeling a disagreeable sun's ray, or

experiencing the sensation of fatigue. We have caught as many fish, and killed as much game in the South, but never without being tired out, whilst there we have felt every evening sorry that the day was not longer. The rudest bed has always found us ready to sleep, but we never laid our *weary* limbs at length." (See *New Orleans Medical News and Hospital Gazette*, for November, 1859.) Dr. Hayes, who accompanied Dr. Kane in his Arctic Expedition, said he had never seen a case of tubercular disease among the natives, and this is doubtless due to the great consumption of fatty food. If he had a consumptive patient, he would send him to Greenland, if possible, and put him upon train-oil diet, with a dog-sledge and a bear-hunt for exercise. (See *Transactions of Ohio State Medical Society*, for 1857.) Where the patient is able, and, what is of equal consequence, willing to take exercise in the open air, we would say, most emphatically, send him North instead of South.

In the *Medical and Surgical Reporter*, for Nov. 19th, the report of the interesting discussion, above referred to, is continued. Dr. Condie objects to active exercise for consumptives, to a diet of fat meats, broths, &c., and to stimulating drinks. He could not report favorably of cod-liver oil, or the hypophosphites. Dr. Condie spoke at considerable length; but his remarks were objective, and not recommendatory. Dr. Bell thought differently of exercise, and his remarks on the influence of elevation were exceedingly interesting, and worthy of quotation here, at least in part. "But a few years ago the living on a mountain elevation, the air of which is cold and rarefied, would have been thought a very rash step for a consumptive invalid, especially if he had suffered from spitting of blood. We had forgotten, however, the fact that the monks of the Great St. Bernard never have tuberculosis; and we had to learn that the inhabitants of the mountains of Hartz, Thuringia, and the Black Forest, living at the height of from 5,000 to 6,500 feet above the level of the sea, enjoy a similar immunity. In South America, consumption is not mentioned among the diseases of St. Louis de Potosi. Dr. Tschudi, after five years' residence in Peru, and Dr. Smith, after nine years, agree in saying that this disease, which is quite common on the sea-coast, diminishes in frequency and becomes of rare occurrence as the height of the country increases, or from 5,400 to 10,000 feet above the ocean. Dr. Nichols, during ten years' practice in Paz, a city with 40,000 inhabitants, and at an elevation of 12,000 feet, did not see a single consumptive patient. It is almost unknown at Quito, placed under the equator, but at a height of nearly 9,000 feet. Humboldt had

written, now several years since, that the City of Mexico, at an elevation of 7,300 feet, was nearly exempt from the disease." The above facts form collateral support to our convictions, that a cold temperature is better for the consumptive than a warm one. We, however, incline to the opinion that the proper temperature can better be attained by *latitude* than by *elevation*. We cannot agree with Dr. Condie in regard to exercise. In our experience, where the patient has been too indolent to be aroused to activity, and that out of doors, we have predicted death within a year, and experience has usually confirmed the prognosis. In our experience, patients in consumption have invariably improved under active out-door exercise, whenever the patient had sufficient strength to make such a recommendation judicious. Bearing upon this point, we would say that in eleven years of observation we have not seen an actual farm laborer, one who had been such for many years, die of consumption.

Hypodermic Injection.—In the *Boston Medical and Surgical Journal* for November 10th, Dr. Robert White has an article upon the above subject, with an illustrative case. Dr. White is extremely sanguine in regard to the future applicability of this method of medication. Thus he says: "I am sanguine enough to believe and to predict that it will produce as great a revolution in the healing art, as the electric telegraph has done in the slow-coach system of our ancestors."

Dr. White reports a case of delirium tremens, which the usual means failed to quiet. He, the patient, had slept none for five days. Dr. White says: "I desired his family physician to procure a small glass syringe and a little morphia, which he immediately did. When he returned he administered the punch to the patient, which was slowly but eagerly swallowed. In the mean time I dissolved a grain of the morphia (muriate) in about half a tea-spoonful of cold water, then made a puncture with a lancet into the cellular tissue of the left arm, and injected as much of the solution as I could with my very imperfect apparatus." The patient soon slept soundly for two hours and a half. Later he became violent, and the operation was repeated, after which he slept soundly for several hours. "He continued to improve rapidly, and in three days he was up and dressed, arranging his affairs."

Prof. A. B. Palmer, M.D., of Detroit, in his correspondence for the *Peninsular and Independent*, for November, says of Dr. Budd, successor of Dr. Watson, of London: "Sciatica, and other forms of neuralgia, he was treating by injecting into the tissues, over the painful part, with a fine sharp syringe made for the purpose, a solution of

muriate of morphine, a fourth of a grain in about one-half drachm of water being the ordinary quantity used. It usually produced a speedy, general, as well as local effect, relieving the pain. In Paris they are injecting in a similar manner, and for similar purposes, solutions of salts of atropia."

In our last *Monthly Summary* we gave a synopsis of Dr. H. R. Storer's experience in submucous injections in the toothache of pregnancy. In the *British Medical Journal*, for January 8th, 1859, Dr. C. Hunter, House-Surgeon to St. George's Hospital, reports his experience with hypodermic injections in *sciatica*, *delirium tremens*, *tetanus*, *mania*, *gout*, and *chorea*. In the *Medical Times and Gazette*, for March 5th and April 16th, 1859, he details further experience with this remedial means, in wakefulness, with excitement, in tetanus, in *sciatica*, *tic douloureux*, &c. From the last-named paper we make the following extract: "In such cases as *tic douloureux*, *sciatica*, and constant or occasional pains of their nerves, a cure may follow a single injection; or if not, more or less benefit will in all probability be effected. I have had no case in which some benefit was not produced." In severe pains, of a purely nervous character, we have high hopes of this plan of treatment, and surely shall, on suitable occasions, put it to the test.

Fracture of the Neck of the Scapula.—In the *Southern Medical and Surgical Journal*, for November, Prof. L. A. Dugas, M.D., reports a case of the above-mentioned injury, with the intent of showing that sudden paralysis, induced by this accident, is a usual symptom. In the same *Journal*, for June, 1857, he has an article upon the same subject, in which two cases were reported, all tending to establish the same fact. Prof. Dugas says: "This peculiarity has hitherto passed unnoticed, at least by systematic writers, in fractures of the neck of the scapula. As this sudden paralysis occurred in the three cases I have seen, should it not be taken into consideration in establishing the diagnosis of injuries of the shoulder?" As injuries of the shoulder-joint are often so obscure that even experienced surgeons are sometimes in doubt in their special diagnosis, anything in regard to the symptoms of special injuries in this region becomes of interest.

Stomatitis of Nursing Women.—In the *St. Joseph Journal of Medicine and Surgery*, for November, Dr. O. B. Knobe has an article upon chlorate of potassa, in which he uses the following language in regard to its use in the above-mentioned disease: "In the treatment of this heretofore almost intractable and distressing disease, which is so frequently met in the Western States, we have in the chlorate of

potash almost as sure a specific as we have in quinine in malarious fever, administered alone or in alternation with the vegetable tonics, as quinia, gentian, colombo, &c.; or in other cases where there is great sponginess and bleeding of the gums, and mild astringents and tonics seem to be indicated, with the mineral acids, the disease speedily begins to yield to its magic influence. In a week or two I have seen the worst cases entirely recover, and the poor woman regain her wonted good health. In this affection it should be given in pretty large doses, and a favorite mode of prescribing it is the following:

R.—Potassæ chlorat., 4 drachms.
 Aquæ cinnamomi, 4 ounces.

To be well rubbed up in a mortar, so that its complete dissolution may be effected. If simply put together without this precaution, a portion of the salt remains at the bottom of the bottle undissolved. Of this mixture I order a dessert spoonful, to be given morning, noon, evening, and at bedtime. If it be desirable to give a tonic at the same time, the one selected can be given intermediately, twice or three times a day."

Gonorrhœa Treated with Indian Hemp.—In the *Oglethorpe Medical and Surgical Journal*, for November, Dr. M. D. Mooney, of Georgia, reports his experience in the treatment of gonorrhœa with the extract of the Indian Cannabis. He says: "I used the following prescription in four cases of gonorrhœa, and was successful in every case, in from five to seven days:

R.—Sugar of Milk, 3ss.
 Ext. Indian Cannabis, 20 grains.

Mix well together and divide into 60 powders, one to be taken every three or four hours. This prescription, I am persuaded, will relieve the most obstinate cases in a short time."

Persistent Uterine Hæmorrhage.—In the *New York Medical Press*, for November 19th, as per report of Dr. G. T. Elliot's obstetric clinic, Dr. Elliot has a few very appropriate remarks on persistent uterine hæmorrhage, occurring after miscarriage. In the case under consideration, more or less hæmorrhage had occurred daily for several months. Dr. Elliot says: "Build her up, prevent a distended rectum from obstructing pelvic venous return, and give her such mineral acids and astringents as will co-operate therewith; add thereto such position and habits as naturally suggest themselves; but carry within that cervix an ointment of nitrate of silver, in such strength and at such intervals as tact and experience and the varying conditions of

the patient allow. It is such adaptation of this treatment that the skillful and experienced man so distances the unskillful." . . . "The strength of the ointment is a matter of extemporaneous prescription. I have patients now under treatment in whom the strength varies from two grains to the ounce to the use of the solid stick. I prefer ointments to injections; and I use as a vehicle the stramonium ointment from a reliable druggist, preferring it much to belladonna. So in some cases do I introduce it just within the os, and in others to the fundus. Sometimes the injection succeeds where the other mode fails, but rarely. I have got to learn that ointments kill; injections certainly have." . . . "I would begin in this case with an ointment of ten grains of the nitrate of silver to one drachm of the stramonium ointment."

Chlorate of Potash as a Toxic Agent.—In the same No. of the *Medical Press*, as above referred to, Dr. E. J. Fountain, of Davenport, Iowa, has a few remarks upon the above subject. It was said in a recent No. of the *Medical and Surgical Reporter*, that "Mr. Osborn, in an article in the *Lancet*, cautions the profession in the use of the chlorate of potash. He has seen congestion of the brain and convulsions follow its use in children." In experimenting on himself, he says, he felt symptoms of congestion of the brain, with slight paralysis of one side of the face, on taking xv. grains of the medicine. To this Dr. Fountain opposes his own experience. He says he has often administered the chlorate of potash in drachm doses, three times a day, for many days, and even weeks together, without observing any of the above-mentioned effects. He says further, "After reading the article from the *Medical and Surgical Reporter*, I called at a drug-store and had weighed out for me half an ounce of chlorate of potash, the *whole of which* I took at *one dose* the same evening. I was in perfect health at the time, and took it simply as an experiment. This was last evening. Shortly after taking it I was called out to attend a case of labor, which occupied me most of the night. I felt no inconvenience from the dose, only a warm glow pervaded the surface of my body in about half an hour from the time it was taken. This morning I feel as well as usual, only having a slight headache, such as I usually have after being disturbed of my rest. It has not even produced any laxative effect, and certainly no manifestation of any toxical properties." An article of such manifest utility, and of such diversified adaptations as is the chlorate of potash, should not be brought into discredit, without good and well-established cause. We look upon Dr. Fountain's experiment as exceedingly interesting and well timed. We have used

the above-mentioned article largely, and must confess have never observed any toxic effects.

Disappearance of an Abdominal Tumor under Treatment.—In the *Boston Medical and Surgical Journal*, for Nov. 17th, Dr. Walter Channing reports a case of sudden disappearance of an abdominal tumor under treatment. Dr. Channing has more faith in medicine, in such cases, than the profession generally, though from his remarks, we should suppose his faith in medicine in ordinary diseases to be below par. In regard to tumors, he says, "No matter what may be the size of such tumors—whether of a fist or a bushel measure, I would labor faithfully to promote their removal, and by means which would not disturb existing general health. I believe we have such means. They have been tried, and my purpose is, as opportunity occurs, to try them again." In the case reported, the patient was a married woman, aged 32 years. "Examination discovered a large, solid tumor, extending from the umbilicus to the symphysis, broadly occupying the corresponding lateral regions of the abdomen, making the central protrusion less than might have been looked for." The treatment brought to bear upon the case was "tinc. iodine to abdomen over the tumor, once daily. Aqua calcis muriat., thrice a day. My compound belladonna ointment to pelvic extension of the tumor, *per vaginam*, once a day." At the end of a month the tumor had wholly disappeared, and the patient was discharged. Of the case Dr. Channing says, "In Mrs. ——'s case, local and constitutional symptoms attended the rapid increase of size. Among these were declining flesh, strength, health, embarrassment on motion, dysuria, and very painful disturbances of the abdominal viscera. After treatment the abdominal tumor rapidly diminished in size, and the general and local symptoms gave way as this important change proceeded."

This case is somewhat remarkable in its results. We have repeatedly treated ovarian tumors thoroughly and persistently, and were never conscious of diminishing the size of such tumors. We are, unfortunately, not alone in this result. Were Dr. Channing a less accurate and painstaking observer, we should think he had encountered a *phantom tumor*. Such an inference would derive circumstantial support from the fact that the patient was in feeble health, of sedentary habits, engaged in labor that involved much fatigue, anxiety, and night-watching, and also suffering from *severe dysmenorrhœa* and *dysuria*. Additional support would be derived from the fact that the tumor was not of slow growth, but of sudden appearance.

Ballottement not a sure Sign of Pregnancy.—In the same No. of

the *Boston Medical and Surgical Journal* just referred to, Dr. Storer reports a case of abdominal tumor simulating pregnancy. The patient was aged 36. "The abdomen was much enlarged, more so than is commonly the case at the fifth month." She was supposed to be pregnant by the family, and a physician was consulted, because she seemed to be sinking from exhaustion. On examination, Dr. Storer says, "ballottement was produced as perfectly as I ever felt it." Drs. Borland and J. Mason Warren agreed with Dr. Storer, that she was pregnant, and that premature delivery was the appropriate treatment. The case proved to be one of disease of both ovaries, complicated with ascites. The case is of interest, and decidedly unique. It "proves incontestably that ballottement, as perfect as in pregnancy, may exist when the uterus is empty and a solid body floats freely in ascites."

A Remarkable Case of Ascites.—In the *Medical and Surgical Reporter*, for Nov. 19th, Dr. S. M. King, of Monongahela City, reports a very remarkable case of ascites. In the last five years, Dr. King has tapped his patient many times, more than fifty, but the exact number of times not stated. The amount of water drawn off falls but a few ounces short of 629 gallons—twenty-one and a half barrels! The Dr. says his patient "is in the enjoyment of tolerably good health, and should nothing unusual occur, bids fair to live for years yet."

Inhalation in Diseases of the Trachea.—In the *Boston Medical and Surgical Journal*, for Nov. 24th, Dr. E. J. Coxe, of New Orleans, reports a case of chronic inflammation of the trachea cured by the inhalation of a solution of the iodide of iron in laudanum, after a failure of the usual remedies. We regret that Dr. Coxe did not give the strength of the solution and the frequency of the inhalation. The author once suffered from some throat difficulty, the exact nature of which is not specified. We make one quotation, as it gives his views of inhalation and the above-mentioned agent in particular. "A few remarks in reference to the high opinion I entertain of medical inhalation may not be out of place. In 1827, I was forced to direct my attention to this subject, and since that time I have not ceased to employ it in private and hospital practice, with unquestionable advantage. It would indeed be strange were it not very highly appreciated, when I reflect on the fact that 'it alone' effected a perfect cure in my own case, after having enjoyed the advice of the first medical men in the United States and France, after having used many hundred leeches to the throat, after being cupped at least one hundred times,

suffered from blisters and tartar-emetic ointment to a great extent, and had in the throat and breast five setons, worn through a space of almost two years, without more than keeping the disease at bay. It required, however, no little resolution, with the constant use of the inhaler for many years, as well as a great variety and large quantity of the most active medicines, before perfect health was obtained."

Quinine in Pneumonia.—When we commenced giving quinine in the first stage of pneumonia, in the winter of 1857 and '58, we were not aware that we had precedent for such treatment, excepting when modified by malarious influence. Since that we have learned that we were anticipated, by many years, in this plan of treatment, by more than one writer and practitioner. In the *Medical Journal of North Carolina*, for October, Dr. S. A. Cartwright, of New Orleans, says that he recommended quinine in pneumonia in a paper published in the April No. of the *Medical Recorder*, for 1826. About the same time, he says, his *protégé*, Dr. Perrine, recommended the same treatment in Dr. Chapman's Journal. Of Dr. Perrine, he says, "Dr. James A. McPheeters and myself indoctrinated him into the mysteries of treating fevers and *pneumonia* with quinine. He settled in the country about twelve miles from Natchez, where the quinine practice in his hands was so successful, that Dr. James Metcalf, in the same neighborhood, was compelled, in self-defence, to adopt it to retain his business. Dr. James Metcalf had a brother, a student of medicine, in Paris at the time, to whom he communicated the wonderful virtues of the sulphate of quinine in six-grain doses during the paroxysm of certain fevers, attended with very frequent pulse and great determination of blood to the head, and also as very valuable in *Pneumonia Biliosa*. It was through that brother, Dr. Volney Metcalf, that the French were induced to try the article in large doses. It was more than ten years after the introduction of the quinine practice in certain forms of remittent fever and *pneumonia*, before the physicians of New Orleans, or anywhere else, adopted the practice, with the exception of Dr. Thomas Fearn, of Huntsville, Ala., who began its use in 1833 or 1834. For a number of years the quinine practice was confined almost entirely to Drs. McPheeters, Perrine, Metcalf and myself, and a few young men who learned the practice from us, and adopted it in order to succeed in business." Dr. Cartwright's statement, that the quinine is borne better when combined with opium, corresponds exactly with our own experience.

Diphtheria.—In the *Virginia Medical Journal*, for October, Dr. G. W. Claiborne, of Petersburg, Va., reports two cases of diphtheria,

and makes a few remarks upon the general treatment. At the present time anything concerning the treatment of this disease, which, in many localities, has proved so unmanageable, is of the first importance. Dr. Claiborne says he has treated eight cases in the last few months, with but two deaths. He says, "I believe it clearly apparent from these, that the tonic treatment, preceded by a few doses of mercury where a foul tongue and offensive breath indicate disordered secretions of the primæ viæ, is that which promises the best success; and of tonics, quinine, in doses adapted to the age and condition of the patient, with a mineral acid and a little lemon syrup, the most desirable. Brandy, or some one of the tinctures, in the latter stages may be quite necessary. Chlorate of potass. and muriated tincture of iron were used in most of the cases, alone and combined, and with, I think, some good effect.

"As to the local treatment, *in the beginning* of the disease, I believe no local application could properly supersede nitrate of silver, in solution, ten to thirty grains to the ounce. After a few days, however, when the fauces had become so exceedingly sensitive as to give great pain, I used with equal success a wash of borax, honey and myrrh."

Ununited Fracture Treated by the Drill.—In the *New York Journal of Medicine*, for November, is a case of ununited fracture of the bones of the leg, reported by Dr. Enos, of New York. The patient was a female, aged about thirty-five years, and of intemperate habits. As the bones were found ununited, after the removal of the usual dressings, means were immediately resorted to for the accomplishment of the desired result. Friction of the ends of the bones against each other and the cold douche were used, needles were introduced, and a current of galvanism passed through them, but *without effect*." Later, he "bored through the ends of the fractured parts in several directions by means of a drill, as recommended by Dr. Brainard, of Chicago. The patient was benefited by the first operation, which was repeated about two weeks afterwards, and it will probably suffice to effect a cure."

Anti-Lactescent Properties of Compressed Sponge.—In the *New York Journal of Medicine*, for Nov., Dr. P. Stewart has an article upon the above subject. He reports the case of a lady that had given birth to four children; after each accouchement, her left breast had inflamed and suppurated. She had never been able to procure milk from it, and she dreaded the breast difficulty far more than the accouchement. At her fifth confinement, Dr. Stewart says, "I directed a piece of circular sponge, of the diameter of the breast, an inch or more in thick-

ness, freed from all foreign substances, and subjected to a pressure of from 15 to 20 lbs. for four or five days. The day after her confinement, before the milk secretions began, I applied this sponge to the gland, making a hole in its centre with my finger, to receive the nipple, and by an appropriate bandage, made nearly equal pressure over the entire breast. The result was, when the secretion of milk occurred in the other breast, none whatever occurred in the one subject to the pressure." It is to be hoped that, in future, mammary abscesses will be of unfrequent occurrence. The result in the above case was quite satisfactory. We have derived results quite as satisfactory as the above from the local application of belladonna. Only last week we attended at a labor which was one of face presentation, and the child was born dead; we attended also a case of miscarriage at three months, about the same time; in both cases we used Tilden & Co's fluid extract of belladonna locally to the breasts, and no milk was secreted. Last evening a gentleman, whose wife was confined three days before, called for a breast-pump, as his wife's breasts were extremely hard and painful; we sent belladonna, and this evening there is no complaint. From our experience with this article for the last two years, we are disposed to think mammary abscesses may be avoided in a great majority of cases, where this remedy is put to the test early.

Sulphate of Iron in Varicose Veins.—Before the Kings County Medical Society, as reported and published in the November No. of the *New York Journal of Medicine*, Dr. Enos reported a case of varicose veins successfully treated by injecting *persulphate of iron*. He is of opinion that this is the first time persulphate of iron has been used for this operation, and he thinks it will prove a better preparation, because of its less irritation than the perchloride.

Treatment of Typhoid Fever.—In the *New Orleans Medical and Surgical Journal*, for Nov., Dr. J. R. Smith, of Elyton, Alabama, has an interesting article on typhoid fever and its treatment. Dr. Smith favors the use of large doses of quinine, in the early stages of this fever, but the object of the paper is to recommend opium and astringents in the later stages. The Dr's views of laxatives so exactly correspond with our own that we are disposed to give a synopsis of his paper. In the spring of 1858, he treated 50 cases of what he calls *pure typhoid fever*. He says, "Of the fifty cases occurring before the 20th of June, 36 were seen and prescribed for from the second to the eighth day of their sickness; 14 were not seen until after the eighth, and some as late as the fifteenth day of sickness. Of the 36 prescribed for before the eighth day, 18 were cut short by large (fifteen to thirty grains)

doses of quinine; 16 cases ran from fourteen to fifteen days, and recovered, and two died—one from a relapse, and one after a fair trial of the quinine. Of the 14 cases seen after the fourteenth day, 12 recovered and two died. Of the 12 recoveries, we *succeeded* in keeping the *bowels closed* from four to ten days. Of the two fatal cases, the bowels continued to be relaxed, notwithstanding the persevering use of all the remedies in such cases, until death closed the scene."

Dr. Smith considers the abortive treatment adapted only to the early stage of the disease. He seldom gives more than two large doses of quinine, at an interval of three hours, and he prefers to give it in connection with opium and spirits of nitre. But we now come to the later stages. Dr. Smith says, "Picture to yourself a case of hot, dry skin; flushed cheeks, parched, fiery-red tongue; subsultus tendinum; a hard, rigid state of the abdomen, with occasional borborygmus, the diarrhœa six to eight times a day, and probably twice as often during the night, the discharges being thin, watery and muddy, with occasional streaks of blood; low, muttering delirium; picking at the bed-clothes, or at imaginary objects in the air; thirst intolerable; pulse ranging, owing to the time of day, from 120 to 140 beats per minute." In such cases he thinks the salvation of the patient depends upon the quietude of the bowels. He says, "We have again and again kept the bowels closed as long as ten days, and the patient improved in all his symptoms during the time; the fact is, we have never lost a patient whose bowels were closed and so maintained *in pure non-complicated typhoid fever*." "In accomplishing this very desirable object, our sheet-anchor is opium and tannic acid, and these we give for this purpose, regardless of quantity; if we give the articles in their solid state, we prefer making them into pills, one grain of opium, with four of tannin, giving at every other operation of the bowels. A better form is to saturate the tinc. opii. with tannic acid, giving from forty to sixty drops at a dose, repeated in proportion to the frequency of the discharge." In addition to this, he gives veratrum viride and oil of turpentine, as the indications seem to demand. "For a common drink, nothing answers so well as a weak solution of chloride of soda; in fact, we consider this as an important adjuvant in the treatment of typhoid fever."

In our notice of Dr. Reeve's work on typhoid fever, in the MONTHLY, for September last, our readers may remember we entered our decided protest against the use of cathartics, so highly recommended by that author. When the discharges from the bowels are of a thin, muddy appearance, our observation has taught us that the oftener the move-

ments the higher the fever, and the greater the prostration. In that same notice, we said of opium, that we believe it to be, all in all, second to no other agent in enteric fever.

Diphtheria.—In the *New Orleans Medical and Surgical Journal*, for Nov., Dr. S. A. Cartwright has a lengthy article upon *Malum Egyptiacum*, which he considers synonymous with the present diphtheria. We cannot give a synopsis of the paper, but we take this occasion to refer to one remark which he makes in regard to treatment. Of local means, he says he is “well satisfied with a tincture made by infusing for several days, in diluted alcohol, one pint; finely powdered hydrastis root, (or the sariette of the French,) and the powdered bark of the root of the myrica cerifera, of each one ounce; three ounces of gum myrrh, and two drachms of capsicum. A piece of cotton or wool, (the former the best,) fastened to a probang, saturated in the above tincture, is the best thing I have ever found to swab the throat with.” About his general treatment there is nothing peculiar, excepting, perhaps, that capsicum is one of the more important agents. Upon the subject of diphtheria we have had frequent occasion for remark. It may not be inappropriate to say, that W. H. Ranking, (see Ranking’s Abstract, No. 29,) and Dr. T. H. Smith, (see *British Med. Journal*, for 1859,) speak in high terms of the *muriated tincture of iron*, as an internal remedy in diphtheria.

Vesico-Vaginal Fistula.—In the *New Orleans Medical and Surgical Journal*, for Nov., Prof. T. G. Richardson reports two cases of vesico-vaginal fistula, cured by operation. He says, “I am happy to be able to add my humble testimony to the value of the procedure devised by Dr. Bozeman.” In the first case, there were two fistulas, and three operations were required to effect a cure. In the second case, “the opening was quadrangular in shape, oblique in its direction, and measured at least *an inch and a quarter in its longest diameter*.” The result of the operation was entirely successful in this case.

Face Presentation.—In the *Medical and Surgical Reporter*, for Nov. 26th, Dr. W. G. Meachem, of Warsaw, N. Y., reports at length a case of face presentation, in which “the usual anterior rotation failed to be accomplished, and the chin traversed the sacral venter, and emerged at the posterior vulvar fourchette. Notwithstanding the unfrequent and unfavorable mechanism, the delivery was terminated without prejudice to the infant or the mother.”

Last week it was our fortune to attend a lady, aged 35 years, in her *first* labor, in which case the face presented. When we first saw the patient, she had been in labor eight hours, the membranes had ruptured,

the forehead rested on the sacrum, and the chin was pressed hard against the pubis. With two fingers of the left hand high up in the rectum, we pressed *down* upon the occiput, while, with two fingers of the right hand, we pressed *up* on the chin. Failing to rectify the malposition after thorough effort, we desisted and left the case for two hours to the efforts of nature. Making but little or no progress, we now gave ergot, and with two fingers on the occiput of the child, as before, reaching that point per rectum, and with one finger in the mouth, we pulled the chin down and under the arch of the pubis. With a few severe pains, the top of the head swept the perineum, and the child, weighing nine pounds, was born dead. The mother recovered without accident.

Inversion of the Uterus.—In a lecture upon this subject, published in the *Medical Press*, for Nov. 26th, Prof. Bedford has the following, in regard to treatment: "All things being equal, it is, in my judgment, far more desirable to attempt to replace the inverted uterus, whilst the placenta is still in connection with it; under such circumstances, the pressure is not made directly against the womb itself—which must necessarily expose it to more or less injury—but the pressure, you perceive, is directed against the intervening object—the placenta. After the reduction has been accomplished, the hand is not to be suddenly withdrawn from the uterus, but on the contrary, it should be continued within the cavity, until the organ, through its contractions, forcibly expels it; this will be the best safeguard against the recurrence of the inversion."

Apologetic.—In the *New York Monthly Review*, &c., for December, Dr. Edmonds, of Buffalo, complains that we misquoted him, in our *Summary* for October. On reference to his and our respective papers, we find that his complaint is just. Three words only were quoted, and that *correctly*, but the *application* was erroneous. We regret this, as we never intentionally misquoted or misrepresented the opinions of any man. In the hurry of an extensive reading, we suppose we did not rightly understand the author, and in committing this mistake the fault was most decidedly ours. We are glad to make this *amende* to Dr. Edmonds, and trust he will accept it. For a difference in opinion no apology is necessary.

REVIEWS AND BIBLIOGRAPHY.

The Diagnosis, Pathology, and Treatment of the Diseases of the Chest. By W. W. GERHARD, M.D., one of the Physicians to the Pennsylvania Hospital; Fellow of the College of Physicians of Philadelphia; Member of the American Philosophical Society, &c. Fourth edition, revised and enlarged. Philadelphia: J. B. Lippincott. Octavo, pp. 448.

Since the researches of Andral and of Laennec were published to the world, a new impetus has been given to the study of thoracic diseases, and a precision acquired in their diagnosis which was previously unknown. Anterior to this time, diseases having their seat in the chest cavity were imperfectly understood, and diagnosticated with uncertainty and a lack of precision. At present the literature of the diseases of the lungs and the heart is ample, and there is no excuse for ignorance in the profession in this department of special pathology and therapeutics. Williams, Walshe, Stokes, Skoda, Thompson, Bennet, &c., among foreign writers and observers; and Sweet, Green, Flint, Gerhard, &c., among those of our own country, have added largely to the literature of this class of diseases, and placed the student of to-day, who will improve his opportunities, far in advance of those of a hundred years ago.

As Dr. Gerhard and his work upon the Diseases of the Chest are both well known to the profession, the volume before us will not require an extended notice. It is proper to say here, that this is not a new edition simply, but a revision and extension of his former work. About one hundred pages of new matter have been added, and, in its present form, it is a fair embodiment of the present state of knowledge upon the diseases of the chest, and is, probably, the best work written by an American physician, embracing the whole subject of chest diseases.

Chapter 1st is devoted to a comparison of *physical* and *general* signs. While he estimates highly the *physical*, he does not, as is too often done, underrate the general signs of disease. "Physical exploration is much more extended in its application when combined and compared with the rational signs, than if used alone. For, in itself, it teaches us rather the condition of organs as modified by disease than the manner in which the disease forms, or the mode in which it advances." * * * "There is, therefore, no means of arriving at a correct conclusion in the diagnosis of pectoral diseases other than a union of the two modes of investigation, which will then work together as two different ways of arriving at the same end." (page 18.) Every one

knows that physical exploration is quite as prolific of negative as positive results, and every judicious prescriber is well aware that the general signs are of primary importance, from which to deduce the indications for correct and successful treatment. The physical signs may be necessary to tell us that pneumonia exists, but the general signs can alone tell us whether life is to be saved by bloodletting and antimony, or brandy and quinine.

Chapter 2d is devoted to the *conformation of the chest*, and chapter 3d to the more practical subject of *percussion*. This subject is not treated of at as much length as in works devoted especially to physical diagnosis, but it is sufficiently elaborate for a work embracing not only the diagnosis of chest diseases, but their pathology and therapeutics. Dr. Gerhard is not much in favor of pleximeters, or such percussing hammers as the one invented by Dr. Bigelow, of Boston. Of pleximeters he says, "The finger, under ordinary circumstances, is the best one which we can employ, and is superier to any of the ordinary artificial instruments, from its ready adaptation to different parts and irregularities in the chest." (page 37.) As a percussor, the author prefers the ends of the fingers of the right hand to any other—one, two, or three fingers are used at discretion, depending upon the force of impulsion required. His remarks upon the division of the chest into regions for examination, and upon the natural sounds in health peculiar to each, are appropriate, practical, and easy to be comprehended by the learner. With one quotation we dismiss the subject of this chapter. "We find that in healthy individuals there is often a considerable difference in the sounds of percussion. I have already alluded to some of the causes of this difference, which may be perfectly external to the chest, and consist in accumulations of fat or serum beneath the skin; or, on the other hand, they may depend upon a want of resonance in the thoracic parietes, and arise from the partial ossification of the cartilages. There is a third class of patients who offer less than the average degree of resonance of the chest; in these individuals the lungs contain less air than usual, and are apparently more firm and more similar to cellular tissue. The chest, on the other hand, may be more resonant than the average, from either a real dilatation of the vesicles of the lungs, or from the patient being greatly emaciated without much disease of the lungs themselves." (page 50.)

Chapter 4th is devoted to *auscultation*. For the purposes of auscultation, the author prefers his unassisted ear to any form of stethoscope. "Indeed, in my habitual auscultations, I have almost totally

given up the use of stethoscopes, the unassisted ear being vastly preferable, since it gives us the true sounds of the chest in a much more satisfactory way than we could obtain them by means of any additional instrument." (page 54.) Of Dr. Cammann's stethoscope, which is in such general favor with the profession, he says, "In this, however, he has been singularly forgetful of the fact, that for careful hearing or careful sight, one ear or one eye alone is used. Hence I regard the application of an instrument of this kind very much in the same light as I should that of a double telescope or a double microscope." (page 54.) This chapter is an interesting one, and is sufficiently full for all practical purposes in diagnosis. The sounds of *healthy respiration* are first considered, and subsequently the *morbid* sounds of the *respiration*, and the *voice*, and the various *friction* and *rhonchial* sounds.

Chapter 5th is devoted to the *general signs* of pulmonary disease, and embraces cough, expectoration, and the movements of the chest in inspiration and expiration.

Chapter 6th is devoted to *pleurisy*, and is a very complete essay upon that disease. His plan of treatment we consider eminently judicious. Many persons bleed every case of pleurisy that they are called upon to treat. The author's rule is, "not to take blood from the arm unless the patient has decided pain and difficulty of respiration, together with some excitement of the pulse." (page 117.) We should not bleed without considerable excitement of the pulse, unless the patient was quite robust. The author prefers small blisters to large ones, which he would repeat frequently. Blisters are only appropriate when the febrile action has begun to decline, if at first high, and should only be kept on just long enough to produce vesication. We should prefer them six inches square, rather than "two or three."

In the treatment of pleurisy, the author considers opium "simply a palliative remedy." We think differently; as an anti-inflammatory remedy, and as an equalizer of the circulation, thus relieving local congestions, except where the seat of disease is in the brain, the *Materia Medica* has but few, if any, remedies superior to it. Those who have put the anti-inflammatory powers of this remedy to the full test in peritonitis, will, we think, be willing to admit that it can do something more than palliate the symptoms in pleurisy.

The author does not think so highly of paracentesis as do a few other authorities. He says of this operation, "It is one which we should not practice, unless it be to relieve excessive dyspnoea, which may, in itself, be severe enough to threaten life." (page 126.) It is more than probable that many lives have been lost, that might other-

wise have been saved, by postponing paracentesis until life is immediately threatened. At this stage, the local changes and the constitutional impairment, giving rise to decided hectic fever, are such as to greatly lessen the chances of success. The danger from this operation, when skillfully performed, under favorable circumstances, has, doubtless, been overrated. The time to operate has come when a fair trial has been given to well-selected remedies, and still the accumulation of fluid continues to increase, or fails in the least to diminish. In such cases, to persevere in the administration of remedies, that a full trial has proven inadequate to the case, until death is imminent, is to neglect one's duty, and to debar the unfortunate patient of the best chance that the healing art has to offer.

Chapter 7th is devoted to *bronchitis*, in all its varieties. The author's directions for treatment we consider extremely judicious. Of one of his prescriptions in acute bronchitis we can speak with confidence, as it is our special favorite in such cases. Thus, "we may give an eighth of a grain of tartarized antimony with the same quantity of morphia. This may be repeated two or three times a day, or it may be varied to suit the case." (page 143.) Where the fever is high, and the cough tight, and troublesomely frequent, we should prefer to repeat once in from two to four hours.

Speaking of bronchitis in young children, he says: "The child should not be allowed to lie on its back for a longer period than two hours. This direction may appear trivial, but it is of much importance, for I have known death to occur from a neglect of this precaution. In the Children's Hospital at Paris, I have many times observed lobular pneumonia to occur after the bronchitis of children, simply because the little patients were allowed to remain on their backs during the greater part of the day." (page 147.)

Of bronchitis in the aged, he says, "If I were to select the diseases in which carbonate of ammonia is decidedly useful, I should place the bronchitis of old men and feeble subjects at the head of the list." (page 148.)

The author considers *hay asthma* as a special form of chronic bronchitis, which he treats with anti-inflammatory remedies. We have considered hay asthma as a spasmodic affection, which could be best treated with cups or blisters to the upper portion of the spinal column, quinine and morphia, in appropriate doses, three or four times a day, a mixture composed of Hoffman's anodyne, lac asafetida, and syrup of morphia, repeated as the circumstances of the case may require, and inhalations of a small quantity of chloroform or ether, if the

difficulty of breathing is severe. *Hooping-cough* he also regards as a peculiar form of bronchitis. Of it, he says, "It is a self-limited disease, and, therefore, cannot be cut short by treatment, although its complications may be removed or palliated." (page 160.) That hooping-cough must necessarily run a certain length of time, and that its duration is unaffected by medicine, we do not believe. We have seen tolerably severe cases end in recovery in ten days, and have seen other cases not more severe continue for three or four months. Cupping or blistering to the upper portion of the spine, with the internal administration of belladonna, quinine, and nitric acid, are among the most important remedies.

Chapter 8th is devoted to *dilatation of the bronchial tubes*, and chapter 9th to *emphysema of the lungs*.

Chapter 10th is devoted to *asthma*, in its various forms. In the treatment of asthma, we think the author has made a decided omission in making no allusion to the inhalation of chloroform or ether, in the paroxysms, and the administration of the iodide of potassium, in the intervals. The inhalation of chloroform will speedily relieve the severest paroxysm, without the necessity of carrying it to anæsthesia.

Chapter 11th is devoted to *pneumonia*. We had marked many passages for quotation and remark, but our limited space forbids. Every closely observing physician is aware that pneumonia, though the inflammation is quite limited in extent, produces a greater amount of prostration than a much more extended inflammation in some other parts of the body. This fact is recognized by our author; he says, "Thus, a patient with pleurisy will continue to walk about, until the effusion causes so much dyspnœa that he is compelled to keep his bed; whereas a slight pneumonia, with scarcely any local signs, will often enfeeble him so much that he will be unable to sit up." (page 201.) It would seem as though this fact should modify our treatment. Our author is in favor of free, and if necessary repeated, bleedings, and full doses of antimony, though he confesses he uses the last-named remedy less freely late years than formerly. If "bleeding is the most efficient remedy" in pneumonia, as he says, then the cases we have treated have been modified by some peculiarity of location or constitution. We have not bled a patient with pneumonia for five years, nor lost a patient with that disease in that time, whether old or young, though we have been in quite active practice during the time, in a region where pneumonia is the prevailing disease of winter and spring. We say this not boastingly, but simply to show that our opinions have a practical basis.

Of opium our author says: "In itself opium is rather objectionable, but it may be properly used, if there is a decided tendency to purge." (p. 206.) Again he says, it "should be given with great reserve in acute inflammatory pneumonia." (p. 208.) We are disposed to differ from our author in this regard; we consider opium one of the most efficient agents that can be brought to bear in pneumonia, especially when combined with such other remedies as the peculiarities of the case may require. It may be combined with antimony or ipecac, or with quinine, with or without ipecac; and these remedies, when judiciously combined and properly used, can be made to meet nearly all the indications that usually arise in uncomplicated cases of pneumonia. It should, however, be observed here that opium should not be used in large, but moderate doses, repeated rather frequently. In pneumonia, as we have observed it, we would much rather dispense with the lancet and antimony both than with quinine and opium. We do not, however, doubt that cases occur requiring the use of the lancet, and antimony we not unfrequently use.

The author's remarks upon *asthenic pneumonia*, and upon pneumonia as modified by childhood and by old age, are quite appropriate, and his directions for treatment very judicious.

Chapter 12th is devoted to *gangrene* of the lungs, and chapter 13th to *tuberculous phthisis*. The author entertains the opinion, in common with many other writers, that *fistula in ano* is a frequent complication in phthisis, and should not be interfered with curatively. Thus: "As a general rule, cases of consumption complicated with fistula are quite slow in their course, and they are most frequent in men who are advanced to the middle period of life. These cases of fistula ought very rarely to be treated by a surgical operation. I have often thought that I was rendering an important service to patients by preventing them from allowing industrious surgeons to tamper with cases of the kind mentioned." (p. 272.) As a curative agent we should certainly prefer a seton about the chest, to a fistula in ano, and should always advise, excepting in the very last stages of consumption, an attempt to cure the latter troublesome and very annoying affliction, and, had we any fears that injury might result therefrom, we should insert and maintain a seton.

The author entertains a favorable opinion of the remedial properties of cod-liver oil, which he thinks can best be taken in beer or porter. We can bear witness to the correctness of his observation, when he says, "Cod-liver oil is not tolerated well during the hot months, in our climate." (p. 293.) It is, probably, better to lessen the dose, or

discontinue its administration altogether during the very hot weather, because it is of the first importance that the patient does not become disgusted with it. Thus he says, "After their stomachs have become thoroughly disgusted with the medicine, it will be found almost impossible for them to return to it."

The author does not speak favorably of the phosphates. As they do no hurt, he advises them, but with no positive results: "Although I still occasionally use the preparation, (syrup of the phosphates,) I do so with a doubt whether any good effects follow from it." (p. 296.)

Dr. Gerhard does not think as highly of a change of climate as do many physicians. Of a migration to the sunny regions of the tropics, he says: "Multitudes of patients are every winter sent to the South, and to the West Indies, simply because their physician feels that their continued presence is a reproach to him, on account of his inability to cure their diseases." * * "Patients are usually sent to spend the winter in a mild or warm climate; but in some Southern localities, where the climate is damp, phthisis becomes exceedingly fatal. Thus an eminent physician, of New Orleans, recently informed me that multitudes of tubercular patients were sent there every winter, only to die more rapidly than they would have done at home." (p. 298.) He is equally opposed to a change of residence to the northward. Of the Lake Superior region, he says: "The winters there, having once set in, are continually cold, the thermometer rarely rising to the thawing point; and this comparative equability of temperature, together with the novel effects of an entire change of residence, may in some cases be productive of good to men; to women they would be positively injurious." (page 299.) If the women have not the fortitude or the energy to leave their artificially-heated rooms, it is true the equable temperature, the dry and bracing air outside, will probably do them but little good; but if they will live an out-door life, so far as is practicable, we are not aware that sexual peculiarities will prevent their cheeks from glowing with the contact with the bracing air that comes from the Rocky Mountains, fragrant with the odors of a thousand flowers, with which it has sported in its transit across the vast prairies. Our opinions upon this subject have been expressed more at length in the *Monthly Summary* of the present number of the MONTHLY.

"The question next to be decided is, Does alcohol exercise an antagonizing effect upon consumption? My experience in the management of these patients, which now extends over many years, has shown me conclusively that this is the case." (p. 310.) Wine and malt liquor

he advises to be taken in moderation, and always with the food. Of brandy and whiskey he thinks favorably, and, when he prescribes them, he always cautions the patient against exceeding in dose or frequency the prescription. "With this caution, I am convinced that no mischief need result from advising a remedy against consumption, which I am certain is one of the most powerful at our disposal." (p. 311.) This opinion is rather strongly expressed, and certainly in opposition to that expressed by Dr. Condie, before the Philadelphia County Medical Society, a few months since, and also that expressed by Dr. Bell, of New York, in his Fisk Fund prize dissertation, published in the October number of the *American Journal of Medical Sciences*. Our experience favors the opinion of Dr. Gerhard, with some qualifications.

Chapter 14th is devoted to *pneumothorax*, chapter 15th to *pulmonary hæmorrhage*, and chapter 16th to *tubercles of the bronchial glands*.

The remaining nine chapters are devoted to the *diseases of the heart*. As we have already exceeded the space at our disposal, we shall not enter into an analysis of the remainder of the volume; suffice it to say that the diseases of the heart are thoroughly discussed, and the treatment proposed in the several affections of that organ is quite judicious.

To those of our readers who are not acquainted with this work of Dr. Gerhard, we recommend it with pleasure. For the student and young practitioner it is unequaled, as a text-book upon the subjects upon which it treats, by any work, emanating from the hand of an American physician, which has fallen under our observation. As a reliable guide in practice, it should be found in the library of every American physician.

The book is issued in the good style which characterizes all the issues from the press of J. B. Lippincott & Co. o. c. c.

Proceedings and Debates of the Third National Quarantine and Sanitary Convention, held in the City of New York, April, 1859. Photographically reported. Public Document No. 9, pp. 728.

This very neatly-printed volume presents a marked contrast with its pamphlet predecessors, and is entitled to a notice in our Journal, from the intrinsic merits of the subjects it discusses, as well as from the medical reputation of some of the chief actors in the Convention which has given it birth. The Quarantine and Sanitary Convention

is entitled to special credit for its manner of doing business, and the American Medical Association might do very well by copying from the sister body. The reports of committees are always *read*, and then freely discussed; so that while the Convention is not considered as responsible for the report of any committee, yet its members are not afraid to give their own views on such report. By the aid of phonography, these views have been collected and furnished us in the volume under notice, through the liberality of the Board of Councilmen in New York. The publication in full of such discussions must inflict upon the readers of the Proceedings much "twaddle" from age and "irrelevant talk" from ambitious youth; yet it enables the reader to form an accurate judgment of the character of the Convention. The Convention seems to have been a working body, in which physicians and laymen endeavored to do something towards the great objects under consideration.

The most important action of the Convention, and one which provoked discussion, was that on the resolution of Dr. Stevens—"That in the absence of any evidence establishing the conclusion that yellow fever has ever been conveyed by one person to another, it is the opinion of this Convention that the personal quarantine of cases of yellow fever may be safely abolished, provided that *fomites* of every kind be rigidly restricted." The yeas and nays were recorded, when it was found that 85 members voted in the affirmative, and six in the negative. The former included Drs. Griscom, Stevens, S. Smith, Reid, Watson, Purple, and Batchelder, of N. Y.; Drs. Wood, La Roche, and Piper, of Phila.; Drs. Moriarty and Storer, of Boston; Drs. Kemp, Gilmer, and McKee, of Md.; Drs. Snow and Mauran, of Providence, &c., &c.; the latter, Drs. Francis of N. Y., Nichols of N. J., and four laymen. Whatever may be thought of this resolution (which appears to the writer to be *in accordance* with the knowledge of the day) by the profession, the independence that prompted its supporters thus openly to record their opinions must certainly be commended.

The report on Disinfectants is not of the nature that might have been expected. Instead of making experiments on the subject, the Committee confined themselves to writing to certain surgeons in the Navy and Army, and to "eminent scientific men of this country and in Europe." Forty such circulars were sent forth, and to these, three replies were received: one of which was written by Prof. Morfit; one from Dr. Muspratt, referring them to an article on the subject in *his* Dictionary of Chemistry, as "one of the most complete articles ever written upon the subject;" and one from Tardieu, of Paris, referring

them to his report on the comparative value of certain methods of disinfection. From these materials the report has been made up. It would have been better, certainly, to have instituted a series of observations, original, and with reference to the use of economic materials in disinfection; and from these to have furnished conclusions that should have added to our knowledge. But it is sometimes even well to furnish an accurate and careful *résumé* of what has been done, as few of our profession have access to many journals in which the papers on disinfection have appeared in late years.

Chlorine is set forth as holding, "of all disinfectants, a foremost rank, except, perhaps, ozone;" and we are furnished with a wood-cut of an apparatus for the purpose of controlling its evolution—the black oxide of manganese and chlorhydric acid being employed for the purpose. We think as much can be gained, by the exposure of bleaching powder in plates or saucers, in the way of setting free chlorine in small quantities in rooms that are occupied, as with any apparatus, however simple it may be. If chlorine is to be evolved more rapidly, the addition of a little vinegar insures this effect; and if still more is to be evolved, quantities of the gas can best be generated by exposure of the black oxide of manganese and chlorhydric acid in open pots or pans.

We are told that "charcoal is eminently antiseptic, and to a certain degree it exerts also a disinfecting power," (page 388.) If by *antiseptic* is meant "the power of preventing animal substances from passing into a state of putrefaction, and of obviating putrefaction when begun," as Hooper defines the word, and as its etymology (*αντι, against*, and *σηπο, to putrefy*,) would indicate; then, this statement is in striking contrast with the experiments and conclusions of Dr. Stenhouse, promulgated in his lecture at the Royal Institution, March 2, 1855. Dr. S. shows, by experiments, that "charcoal, instead of retarding, *hastens* the decay of putrefying substances with which it is in contact;" and adds, "the reason why antiseptic properties were, until recently, universally ascribed to charcoal, appears to have been simply this—that charcoal masks or conceals its operation by absorbing and oxydizing the products evolved." The facts are, that charcoal is eminently a disinfecting agent, and not at all antiseptic.

Mons. Tardieu's report is exceedingly interesting, and presents, as one of its conclusions, the statement that *chloride of iron* is most economical as a disinfectant.

The Report on the Importance and Economy of Sanitary Measures to Cities, by Dr. John Bell, of Philadelphia, shows much care and

judgment on the part of its author, and will repay richly for the time spent in its perusal. If space permitted, we should be pleased to transfer some lengthy extracts on the subjects of sewerage and ventilation. We consider this report as a very valuable contribution to the subject of sanitary science.

In looking over the Committees of the Convention, we have been struck with the fact that the chairmen on *six* out of nine are from New York, one is from Massachusetts, one from Alabama, and another from Tennessee. This should *not* be. It is better to distribute the work of such a body throughout the cities of our Eastern coast. In this way, a larger number will become interested in the work, and more real, practical good will result.

In conclusion, we must express our gratification at the general nature of this volume, and hope it will be widely distributed through our great cities.

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The Obstetric Catechism: containing Two Thousand Three Hundred and Forty-seven Questions and Answers on Obstetrics Proper. By JOSEPH WARRINGTON, M.D. One Hundred and Fifty Illustrations. Philadelphia: J. B. Lippincott & Co. 12mo., pages 445.

This work is a sort of *vade-mecum*, and is not designed as a textbook upon the subject of obstetrics. For the student, or young practitioner, it may be of interest and utility, as a remembrancer of former readings, or a reviver of their knowledge in these matters.

We have given the work but a hasty examination, and, so far as we have observed, the instructions are correct enough; yet, we look upon it as a work for which there was but little necessity. There are two or three similar works already in print, upon which, perhaps, this is but little, if any, improvement. As a pocket manual, it may, however, turn to good account an otherwise idle hour.

The paper, type, and illustrations are not such as characterize the issues from the press of J. B. Lippincott & Co., and, though their name is on the title-page, we venture to say that the work did not emanate from their press.

EDITORIAL AND MISCELLANEOUS.

— Once more we have the pleasure to greet our readers upon the anniversary of a new year. From our editorial chair, in the very centre of this metropolis, we stretch out both our hands to our friends, North, South, East, and West, and wish them A Happy New Year.

In entering upon the year 1860, its duties as journalists, and its anxieties as a proprietor of a medical journal, it is proper to state, that with the present volume a change has been effected, which, while it does not alter in the least the former editorial corps, still concentrates the responsibilities in one person. A change in the residence of the senior editor, who has been connected with the MONTHLY from the beginning, has necessitated this arrangement. The business affairs of the journal will hereafter be entirely in the hands of the present editor, who will continue to be assisted in the conduct of the journal by the same gentlemen with whom he has for the past three years held so pleasant and intimate a relation. In addition to this, the editor is gratified in being able to announce that the department known as a *Monthly Summary of Medical Journalism*, inaugurated in the last volume, will be, as heretofore, under the entire superintendence of Dr. O. C. Gibbs. Our readers have, no doubt, learned to appreciate the admirable summary made by Dr. Gibbs, and will be pleased to hear that it will be continued through the year.

It will be the aim of the editors, conjointly, to make the MONTHLY a true reflection of the progress of our profession throughout the world; and in order to carry out these views to the full extent, they must ask the subscribers to perform their part of the contract existing between them, promptly. By so doing the designs of the journal will be greatly promoted, and the labors of the editors materially lightened.

Many thoughts and reflections might be made, which the season suggests; but putting aside these, we simply congratulate our readers heartily and frankly, hoping that every blessing may attend them, and that their number may not be lessened by the revolution of another twelvemonth. With these simple words we launch the first number of our thirteenth volume, and enter upon the labors of the year with cheerfulness.

— We would draw attention to the action of the Schoharie County Medical Society, and the remarks of Dr. Fanning upon the "Relative Duties of the Public Press and the Medical Profession," to be found in the present number. It is a subject which deserves more careful consideration than the profession has heretofore given it; not on ac-

count of the interference of the various forms of quackery with the pecuniary status of the regular practitioner, but from a sanitary point of view; the physician, from his office, being the natural protector of the sanitary condition of the public.

The evil done by the public press in disseminating erroneous views relative to medicine is doubtless great. The appearance of the vast number of advertisements of proprietary medicines, whether good or bad, is detrimental; but how to effect a reformation is the question. The plan proposed by Dr. Fanning we do not believe to be feasible. The history of newspapers will show that their existence depends almost entirely upon advertisements, and that the withdrawal of the subscription of a class of men as limited in number as are physicians, would not affect the existence of a paper in the country.

There are two means which might be adopted, both of which would, perhaps, in a great degree remedy the evil which is fostered by the public press. The first is to so inform the editors and proprietors of the public press of the dangers arising from the indiscriminate use of the various remedies they are advertising, that it will become with them a matter of principle to abstain from lending their influence in any way to encourage the use of these articles. Once assured of this, the press then becomes a potent engine against them.

But the greatest difficulty to overcome resides in the natural tendency of the human mind to run to novelties, to believe in the miraculous, and to hope for relief from every and any plausible doctrine and remedy that may be advanced. And this we conceive to be the knotty point in the question. We confess that we do not clearly know how to solve it. To inform the conductors of the public press, to represent to them the dangers which reside in the careless use of drugs; to gain them to the side of prudence, of humanity, of right, may be easy enough; but how to divert the great mass of believers in specifics from every novelty, how to affect their superstitious reliance in miracle-working nostrums, how to turn the gullibility of the people into a rational belief and reliance upon the educated physician, and upon him alone, is a problem which we fear will always remain unsolved.

A sick man wants to be well, he clings to hope, and the more dangerous his malady, the more eagerly he catches at the vaguest expectation of relief extended to him. This infirmity of the mind the charlatan plays upon, and if the public press is shut against him, or condemns him even, the walls of our houses, the trees that grow at our door, the lamp-posts which light our path, will be covered with

his placards, while his circulars will be thrust into our hands at every step we take in our daily walks. The charlatan makes use of every device to reach his victim. How shall we save the victim? We know of no better means to meet this drug-mania than that recently proposed by the *Medical and Surgical Reporter* in its issue of Dec. 10, under the title of Domestic Medicines.

The editor, alive to the popular demand for medicines to meet the requirements of the thousand little ailments which daily arise, considers it the duty of the profession to supply this demand, instead of leaving it to quacks; and for this purpose he thinks it "proper that the National Convention for revising the U. S. Pharmacopœia should take into consideration this subject of supplying the wants—be they real or fancied—of the people for family medicines." "Let the Convention," he says, "adopt, and make officinal, a series of formulæ calculated to meet the popular wants for ordinary ailments, such, for instance, as cathartic, anti-bilious, or tonic pills, cough mixtures, liniments, ointments, &c. By making good recipes of these, and other classes of medicines, officinal, a uniform and reliable series of medicines would be supplied to the public, and, if we mistake not, the severest blow that could possibly be devised, be struck at the root of quackery." This seems to us the most direct way to accomplish the object designed by the resolutions of the Schoharie County Medical Society, and we have always believed that quackery was to be met by the legitimate use of the very means employed by the quacks themselves. Officinal preparations of family medicines would, we think, accomplish this to a great extent.

— At the regular meeting of the Academy of Medicine on the 21st of December last, the President, Dr. J. Watson, alluding to the subject of anæsthetics, and remarking that the comparative merits of chloroform and ether was a question now occupying somewhat the attention of the profession, and was, withal, a question of practical importance, he proceeded to call upon the different members of the Academy present, for an expression of their views upon this point.

Dr. Kissam, although using anæsthetics reluctantly, preferred ether to chloroform in surgical operations. In puerperal convulsions, however, he thought chloroform was the preferable agent, from the length of time required to obtain anæsthetic effects from ether, and from the tendency of the latter to excite injurious muscular contractions.

Dr. Reese, coinciding with Dr. K. in regard to the injurious tendency of ether in the case of puerperal convulsions, alluded to the fatal results lately found attending the use of chloroform in Parisian hospitals, and to the caution now exercised there in regard to its inhala-

tion. An apparatus which permitted its inhalation through but one nostril, leaving the other free for the access of atmospheric air, prevented, it was claimed, the injurious results arising from the too rapid or too accumulative action of the remedy. In his own experience, Dr. R. had had no unpleasant results from the use of chloroform, being very careful in its introduction into the system, and never carrying it so far as to produce stertor or coma.

Dr. Squibb had used chloroform for the last five or six years, and it had always been a safe agent in his hands. His habit was to give it sparingly, and with a due admixture of atmospheric air. He had continued its use in some instances as long as 45 or 50 minutes at a time. He thought that in many instances physicians used a second-rate article, being under the impression that they are using that prepared from alcohol, while, in fact, it is made from the spirits left after the distillation of the alcohol.

Dr. Minor, of Brooklyn City Hospital, had eight years' experience in the use of chloroform, and thought that with due care in its administration, it was a safe agent. The fatal results sometimes following its use, he thought, might in most cases be referred to its careless administration.

Dr. Gardner stated that he had used chloroform extensively in his obstetric practice, and although he had used ether, yet from its repeated failures to produce the desired results, he had given it up for chloroform. It is conceded, he believed, that ether was inadmissible in puerperal convulsions, from its tendency to aggravate instead of to relieve them. Even in cases of organic disease of the heart or lungs, he had no hesitation in using chloroform, believing the injury or the danger from its use in those cases less than would arise from the natural straining of the patient during a protracted labor. In ordinary cases of labor, rigidity of the os often continues for hours, notwithstanding the most severe expulsive efforts of the uterus. In these cases, where exhaustion of the patient and even rupture of the uterus are to be feared, the inhalation of a tea-spoonful or two of chloroform seldom fails to ease the patient and relax the os, and to allow the speedy expulsion of the fœtus. The cervix speedily comes under the relaxing influence of the anæsthetic, while a much larger quantity is required to affect the uterus itself. Operations formerly thought to be the most severe, such as turning, &c., &c., are now, under its use, performed with ease. Dr. G. is not in the habit of applying the forceps while the patient is under the full influence of chloroform, preferring that the movements of

the patient herself should designate to him whether the instrument be properly applied or not.

Dr. Peaslee thought a distinction should be made in regard to the use of these anæsthetics in surgical and obstetrical cases. The use of chloroform is safer in the latter than in the former, from the fact that the whole muscular system being aroused, the patient does not in these so fully come under its influence. Of the two agents, he preferred ether, and thought at first he saw unquestionable bad results following its administration; he now feels certain they were due to its being administered not sufficiently diluted with atmospheric air. With proper caution in this respect, he had never known, seen, or heard of a case where it was followed by any durable unpleasant effects. In some cases, he had administered as much as two pounds of ether. Chloroform he used with the utmost care, never giving it more than twenty minutes at a time. He concurred with Dr. Gardner in ascribing to it an almost specific influence over the muscular fibres of the rigid os.

In reply to a question of the President, as to whether hæmorrhage after delivery was increased by the use of anæsthetics, Dr. P. thought he had noticed in these cases a decided tendency to hæmorrhage upon removal of the placenta. To counteract this, he was in the habit of giving twenty or thirty drops of tincture of ergot some ten or fifteen minutes before delivery. With this precaution, he had never seen any dangerous result.

Dr. Horace Green had never employed ether. In his limited obstetric practice for the last ten years, he had always used chloroform, and with advantage. He had noticed a laxative tendency of the anæsthetic, obviating the necessity of any medicine to act upon the bowels, in the first few days after delivery.

Dr. Raphael had used chloroform invariably in his practice, and never found it attended with injurious results. He had given two pounds in twenty-four hours in a case of tetanus.

Dr. O'Reilly gave chloroform slowly and cautiously. He related four cases in which alarming symptoms supervening, the most energetic measures were required to restore the patients. He prefers chloroform to ether.

Dr. Dalton's experience in regard to anæsthetics had been mostly derived from their effects upon animals, though he presumed the conclusions arrived at from these observations were equally applicable to man. At first, he was in the habit of giving ether when operating upon animals, but from the inconvenience attending its administration,

he soon after substituted chloroform. Very soon, however, he found the animals occasionally dying in some unaccountable manner, and this, too, more frequently than was agreeable, and he returned to the use of ether. Dr. D. is convinced that there is a radical difference between the two agents, and that chloroform is much the most dangerous—at least, this is true of animals. Death may result from the bad administration of the agent, and be attributable to the want of air rather than to the anæsthetic. When death occurs from the use of chloroform, it takes place suddenly, and is due, in his opinion, to paralysis of the heart.

Both ether and chloroform may be followed by fatal results; but some pains are required to kill an animal by ether, while with chloroform, death often occurred when he most wished to avoid this result. Dr. D. thinks that, although fatal cases may result from the bad administration of chloroform, yet they cannot always be attributed to this cause, from the fact that they occur in the practice of our best and most careful surgeons, and in spite of their most vigilant caution.

Dr. Buck related a fatal case occurring in his service at the N. Y. Hospital.

Dr. Batchelor detailed some personal experiences in regard to the use and effect of chloroform upon the special senses and the voluntary muscles. He thought the heart did not become paralyzed until all the voluntary muscles had become so.

Dr. Gardner thought the question should be, how little of the anæsthetic was sufficient to produce the effect—not how much could be borne. The minimum dose of twenty drops, as stated in the books, he thought too large. From its internal use, Dr. G. had observed no beneficial effect whatever.

Dr. McFarland differed on this point from Dr. G., and remarked, that he had derived most beneficial results from the internal use of chloroform in a case of colica pictonum.

Dr. McNulty questioned the inference that might be drawn from the previous discussion, that sulph. ether was a perfectly harmless agent, and related an instance where its use had given rise to most alarming symptoms.

Dr. Peaslee referred to the gradual obliteration of the senses as one reason why he preferred the use of ether to chloroform; for it told the operator where he was. It might be carried safely so as to affect the functions of the cerebrum and cerebellum, but should not be pushed so far as to affect the reflex functions of the spinal cord. With ether,

this point was gradually arrived at; but with chloroform, it is reached almost before one is aware of it.

Dr. P., dismissing the subject of chloroform, then explained a specimen of double uterus and vagina, brought before the Academy by Dr. Thomas, and the Academy soon after adjourned.

—Many physicians are in the habit of prescribing some one of the various preparations of malt, known by the generic name of ale or beer, as an agreeable and invigorating tonic. In olden times they were more generally used than at present—alcoholic stimulants, in the form of wines and brandies, being now more frequently employed. In our opinion, a return to the more simple medicated ales of the old dispensaries would be an advantage. The reason for this is patent: ale contains about the same amount of alcohol as the lighter French wines; but in addition to this, it holds in combination, from four to eight per cent. of a narcotic and nutritive extract. It has been stated that milk, the model food, has about twelve per cent. of nutritive matter, and that a pint and a half of good beer is equal, in solid nourishment alone, to a pint of milk; sustaining the Bavarian's exclamation, that beer is fluid bread. But beer is more than this—and herein, we look upon it as an adjuvant in the treatment of certain classes of diseases which are especially prevalent in this country—it has a narcotic principle, which soothes the over-active nervous system, while it at the same time presents it a certain modicum of nourishment.

Heretofore, foreign ales have been depended upon in preference to those manufactured at home, because they were supposed to be purer and better. A reliably pure domestic malt liquor is, then, a desideratum, and we feel that we shall do our friends a service in announcing to them that they have at their hands, and at very moderate prices, a pure malt liquor, which can be relied upon in every particular, as a pure, fermented liquid, containing nothing but the extract of malt and hops, without a drug of any kind. We refer to the Malt Wine manufactured by John McKnight, of Albany, which has been frequently analyzed by competent chemists, and certified to as being "in purity and all desirable qualities, equal to the best imported ales."

—The twelfth volume of the Transactions of the American Medical Association has appeared. It is much less in size than that of the preceding year, yet is of a goodly bulk, much more convenient to handle than the ponderous tome of 1858. Of the contents of its 700 pages we cannot speak this month.

We are requested to state that the volumes of the Transactions may be obtained through Dr. H. D. Bulkley, No. 42 E. 22d Street, who

has consented to act for the Association in this city. Volumes V., VII., VIII., and IX., may be had collectively for Five Dollars; vols. XI. and XII. for Three Dollars each; the other volumes, completing the series, for Two Dollars each.

—*The Chicago Medical Examiner* is the title of a new medical journal, the first number of which has made its appearance, under the editorial supervision of Dr. N. S. Davis, assisted by Dr. E. A. Steele. Chicago has now two medical journals and two medical schools, and from the fact that professors of the two schools are at the helm of the respective journals, we presume they represent the interests of the schools. Dr. Davis, as a former editor of the *Chicago Medical Journal*, has served his apprenticeship in medical journalism, and brings to the new enterprise a judgment ripened by experience, and a thorough acquaintance with the requirements of the position. Under his guidance, the *Examiner* cannot fail to be a valuable addition to the medical journals of our country.

—A prospectus has been sent us, announcing the intended publication of a bi-monthly medical journal in Kansas City, Mo., to be called the *Kansas City Medical and Surgical Review*. The first number is to appear in January, 1860, to consist of 48 octavo pages, and to be edited by Drs. G. M. B. Maughs and T. S. Case.

—Among the periodicals which are doing their duty in informing the people upon questions of hygiene, and which give currency to enlightened views upon medical topics, we may signalize the cheerful old *Knickerbocker*, the patriarch of the monthlies. The first number of the new year has in it an able article upon the Causes of the Physical Decline of American Women, by a frequent contributor to our pages, Dr. A. K. Gardner, in which the subject is handled boldly, many truths told in plain, simple language, but with a nice discrimination which cannot fail to be appreciated. This number also gives an exceedingly interesting description of a visit to the Colony of Mattray, a French institution for the moral and mental education of young criminals; and in its Editor's Table, its usual supply of amusing gossip, entertaining sketches, and humorous anecdote. The professional man can have no better companion to relieve the anxieties of his mind and dissipate the cares of his daily life than the good old *Knickerbocker*. The price is Three Dollars a year.

—We would remind our readers who take an interest in keeping well informed in the literature of the day, that Leonard Scott & Co., of this city, furnish for \$10 reprints of the best Reviews in the Eng-

lish language. These comprise *The London Quarterly*, *The Edinburgh Review*, *The North British Review*, *The Westminster Review*, and *Blackwood's Magazine*. The subscription price to these in Great Britain is \$31. The character of these Reviews it is not necessary for us to state. They have long been celebrated for their able criticisms upon the literature of the day, for their learned disquisitions upon the leading questions in politics, science, and art, and for their chaste and classic style. It is with much pleasure that we bring the names of these great periodicals before the eyes of our readers, and shall be glad if we can induce any one to subscribe to them, for we know we shall thereby be doing them a kindness.

Foreign Medical Journals.—Those of our readers who wish a foreign journal, will find one of the following to answer to their wants and their means:

The London Lancet.—This is a monthly journal of British and Foreign Medicine and Surgery, and, in our opinion, it is the best monthly in the English language, published on the other side of the Atlantic. The contents are arranged in the following order: 1. *Lectures* by the most eminent physicians and surgeons; 2. *Original Essays*; 3. *The Mirror of Hospital Practice*; 4. Leading articles on scientific subjects; 5. Proceedings of Societies; 6. Domestic and Foreign Intelligence; 7. Reviews and Notices; 8. Correspondence; 9. Medical News, &c.

The *Lancet* is republished in this city by James Herald, at \$5.00 per year. To our advance-paying subscribers we will furnish it at \$4.00; (MONTHLY and *Lancet* at \$7.00.)

British and Foreign Medico-Chirurgical Review.—This is a Quarterly Journal of Practical Medicine and Surgery, published in London, and republished by S. S. & W. Wood, in this city. The contents are arranged in the following order: 1. Analytical and Critical Reviews; 2. Bibliographical Record; 3. Original Communications; 4. Chronicle and Medical Science. Price, \$3.00 per year.

Braithwaite's Retrospect and Ranking's Abstract.—These are half-yearly journals, similar in their plan and execution. Both are published in London; the *Retrospect* is republished in this city, by W. A. Townsend & Co., and the *Abstract* by Lindsay & Blakiston, of Philadelphia. The design of these is to furnish a practical and analytical digest of the contents of the principal British, American, and Continental Medical Journals, published during the preceding six months. Price, each \$2.00 per year; (the MONTHLY and the *Retrospect* or *Abstract*, \$4.00.)

THE AMERICAN MEDICAL MONTHLY.

FEBRUARY, 1860.

ESSAYS, MONOGRAPHS, AND CASES.

On the Difficulties and Advantages of Catheterism of the Air-Passages in Diseases of the Chest. By HORACE GREEN, M.D., LL.D., &c.

(Read before the Medico-Chirurgical College, Dec. 22, 1859.)

In December, 1854, I read a paper before the Academy of Medicine of New York, "On the Injection of the Bronchial Tubes and Tubercular Cavities of the Lungs;" and subsequently, namely, in March, 1856, I published in the AMERICAN MEDICAL MONTHLY a detailed report, containing a statistical table of one hundred and six cases of pulmonary and bronchial diseases, treated by means of catheterism of the air-passages, conjoined with appropriate general remedies.

Still continuing, to some extent, this plan of topical treatment in thoracic disease, I have since had opportunities to confirm the truth of some of my early observations; and, what is of equal importance, to correct other views which later experience and more extended observations have shown to have been erroneous conclusions. It is to record and announce these recognized errors, and to point out some of the difficulties, as well as the advantages that attend this plan of treatment, that I bring, at this time, the subject of Topical Medication before the College.

I propose briefly to consider the following questions:

1. Can the operation of catheterism of the air-passages be performed with certainty and facility?
2. What are the difficulties and dangers of the operation?

3. What advantages are to be derived from this method of treatment?

1. With regard to the first inquiry—the possible practicability of the operation? On this point it will not be necessary long to dwell. As very few of the profession, at the present day, will deny its performance, under favorable circumstances, I shall only refer to the opinion of a few members of the profession, from among many of those who have considered this question.

At the discussion that followed the reading of my paper, to which I have alluded, on bronchial injections, before the Academy of Medicine, several years ago, it was remarked by a distinguished member of that body, who denied the practicability of the operation, that “the Academy must not decide this question until we had heard from Europe on the subject, as the profession there would act without prejudice or partiality.”

Already, testimony has come to us from eminent men of the profession, in Great Britain, France, and Germany, that this operation of injecting the bronchi has by them been successfully performed.

Prof. J. Hughes Bennett, of Edinburgh, in his work, “*Clinical Lectures on Medicine*,” says: “I have now introduced the catheter publicly in the clinical wards of the Royal Infirmary, in several patients affected with phthisis, in various stages, in laryngitis, and in chronic bronchitis, with severe paroxysms of asthma. * * * I have been surprised at the circumstance of the injections not being followed by the slightest irritation whatever, but rather by a pleasant feeling of warmth in the chest, (some have experienced a sensation of coolness,) followed by ease to the cough, and a check for a time to all expectoration.” “These facts are made known to the profession,” Dr. Bennett declares, “with a view of recommending a practice which, if judiciously employed, may form a new era in the treatment of pulmonary diseases.”*

In Paris, Prof. Trousseau, Loiseau, Blondeau, and others, have succeeded in injecting the air-passages, in various diseases of these parts. It has been employed in early phthisis, by M. Trousseau, as well as in diphtherite, in which latter disease it was attended with complete success.

It has been still more extensively employed by Loiseau, in the treatment of both diphtheritis and croup. The method of Loiseau is thus described by Trousseau, who was appointed by the Imperial

* See *Clinical Lectures on Medicine*, p. 609.

Academy of Medicine, of Paris, to report upon his plan of treatment: "With the extremity of the forefinger," says M. Trousseau, "he (Loiseau) depresses the tongue, seizes the epiglottis, raises it, and presses the end of the finger between the arytno-epiglottic folds. There is then nothing more easy than to make the end of the tube glide over the finger. The air which escapes through the exterior extremity of the tube proves that it has really entered into the larynx. Through this tube, serving as a conductor, a caustic, the nitrate of silver, for example, or any other medicated substance, may be carried."

In the discussion which took place at the time, before the Academy, on this subject, M. Depaul said, "The process of catheterism of the larynx, as proposed by Dr. Green, was declared by some as being very difficult, even upon the cadaver; but I maintain," said he, "that nothing is easier than this catheterism for those who have performed it a certain number of times." Still more recently than this, comes to us the testimony of Prof. Greisenger, of Germany, as reported in the *Deutsche Klinik*, and in the *Gazette Hebdomadaire*. Prof. Greisenger has been able, as he affirms, to introduce medications of nitrate of silver solution into the air-passages. In regard to the practicability and danger of this operation, Prof. G. says: "For us, after the experiments we have made, we can affirm that these fears are illusory, and that the different parts of the operation can be performed with a rigorous exactitude." And, finally, we have the testimony of the Committee, appointed by the New York Academy of Medicine, to inquire into the truth of the performance of this operation; for they affirm, in their report, made to the Academy, that of the thirty-two patients upon whom the attempt was made to inject the bronchi, the operation was performed in *eleven* cases successfully, and to the entire satisfaction of the committee. It must, therefore, be concluded that the "operation of catheterism of the air-passages," under appropriate circumstances, can be positively performed.

Notwithstanding this operation is being daily performed at the present time, yet it is not always accomplished with certainty and facility. Nature has so guarded the opening into the ærien passages that catheterism of the bronchi is an operation that will be found difficult often to accomplish. In many cases, I am confident, the tube passes over the glottic aperture, and enters the œsophagus, even when the operator feels quite certain that it has been introduced into the larynx. In my own practice I have found myself deceived, not unfrequently, especially in the first years of my experience in this mode of treatment. At first I believed the instrument to have taken the

right course, but afterwards ascertained, in many instances, that it had entered the œsophagus.

2. What, then, are the difficulties that oppose themselves to the facile performance of this operation, and what the dangers?

The *epiglottis* does not of itself close entirely the aperture of the glottis. This cartilage being placed between the entrance of the larynx and base of the tongue, is pressed downward by the abasement of the latter, in the act of deglutition, and being moulded upon, only partially closes the glottis. It is not, therefore, correct to state, as many anatomists do, that the epiglottis "closes completely, of itself, the opening of the larynx," in deglutition.

The arytenoid muscles are the especial *constrictors* of the glottis. These muscles (as Longet has demonstrated) receive filaments from the recurrent nerve. Covering the lips of the glottis is a narrow zone of exquisitely sensitive mucous membrane, which receives its nervous filaments from the internal branch of the superior laryngeal nerve. These two nerves, the one supplying the constrictors, and the other this strip of mucous membrane, communicate freely with each other, but they have no connection whatever with the epiglottis. The irritation of this body, therefore, will have no effect upon either the motive or sentient nerves peculiar to the larynx. This is important to remember, namely: that the epiglottis, in its normal state, is an organ nearly insensible; but when the least irritation of that sensitive portion of the mucous membrane which covers the supra-glottic space occurs, this irritation is quickly communicated to the constrictor muscles, through filaments of the recurrent and laryngeal nerves, and the aperture of the glottis is as quickly shut up. When it is desirable, therefore, to medicate the ærien passages in disease of these parts, it is necessary, as all are aware, to educate the glottic aperture, by repeated cauterizations of this opening. For if, under ordinary circumstances, the attempt be made to pass the sound, or probang, into the larynx before the exquisitely normal sensitiveness of this point of membrane be partially subdued, it will probably prove abortive; or, if successful, and the instrument be made to pass the supra-glottic guard, a violent spasmodic action, not only of the constrictors, but of all the other muscles of the larynx, will occur, followed, often, by great irritation of the parts, and a suffocative cough; and if, under these circumstances, the operator persist in finishing the operation, by injecting a solution of the nitrate of silver into the bronchi, the irritation and cough are both greatly increased, and in some instances inflammation of the bronchial and pulmonary tissue have been awakened, apparently

by these combined disturbing causes. This condition, as the result of these causes, may be illustrated by the following case:

Mrs. F., a widow lady, aged 35, recently returned from California, came under my care July 31, 1858; she was in the second stage of tubercular consumption. Auscultation revealed tubercles, with softening in the right lung. The disease of the lungs had been preceded by follicular laryngitis for many months. The right tonsil, which was still ulcerated, was nearly destroyed, and the pharynx was granular from the diseased and enlarged follicles.

She was placed under general treatment, ordinarily adopted in such cases, together with the application of a solution of nitrate of silver to the throat.

This treatment was continued until the 13th of August, when the parts were thought to be sufficiently prepared to allow the introduction of the injecting tube. On this day I introduced, without any difficulty, the tube, and injected a drachm of the nitrate of silver solution into the right bronchus. No irritation followed the operation. As is the case almost invariably, after injections in either pulmonary or bronchial diseases, the cough and expectoration were considerably diminished for several days after this operation. With intermediate cauterizations with the sponge-probang, the bronchial injection was employed on the 16th, the 20th, and the 24th, with similar beneficial results with the first operation, the patient continuing constantly to improve. On the 26th of the month, in attempting to use the tube, the throat of the patient was found to be unusually sensitive, and it was with some difficulty that the instrument was introduced into the larynx. It was passed, however, into the trachea, in precisely the same way that it had been done on former occasions. A spasm of the glottis immediately succeeded its introduction, and instead of withdrawing it at once, as should have been done, I proceeded to finish the operation, and injected a drachm of the solution (15 grains to the ounce) into the bronchi. By the time the operation was completed, the whole chest seemed thrown into a violent spasmodic action; a convulsive cough, with dyspnoea, followed, which continued during several hours, but was finally somewhat relieved by the use of chloroform, and the administration of anodynes. The cough and dyspnoea, however, with increased expectoration, and pleuritic pains, continued for several days; and, although the patient became in the course of a week quite comfortable again, under general treatment, yet she never entirely recovered the favorable state she was in before the occurrence of the

spasm. As the patient and friends were greatly opposed to any further *topical* treatment, it was never afterwards employed. The pulmonary symptoms increased, the disease progressed, as usual in such cases, and the patient died on the 10th of October, about two months after the last employment of the tube.

Remarks.—The above was a well-marked instance of tubercular disease of the lungs, following a long-continued case of folliculitis; one of those cases, in short, a great number of which in their early stage, in the hands of other practitioners, as well as in my own, have been, and are, successfully treated by topical medication, conjoined with general remedies; and, although a *cure* in this case could not, probably, have been effected, yet, from the favorable progress made before the operation on the 26th, I am confident in the belief that the life of the patient would have been prolonged by the treatment, if it had not been for this untoward occurrence.

A case, similar to the one I have related, came under the observation of my assistant, Dr. Richards. Not having been present when the operation was performed by Dr. R., I take his account of the case.

The patient, Mr. D. M., had been long under treatment for obstinate chronic bronchitis. Topical medication, by means of the tube and sponge-probang, had been repeatedly employed, and the patient had been greatly benefited by the treatment. Mr. M. is the same patient whose case is mentioned by the Committee of the Academy of Medicine in their report, on Bronchial Injections. His case is No. 30; and the Commission thus speak of the success of the operation, as then performed in their presence: "The tube," say the Committee, "was passed without much strangling; the air was freely expelled through the tube. An injection of two or three drachms of a solution of the nitrate of silver, of the strength of thirty or forty grains to the ounce, was then thrown in. All present were satisfied that the experiment was successful." In this instance, as the report affirms, no irritation followed the operation, nor had any irritation attended any previous operations. But on a subsequent occasion, namely, on the 20th of May, 1856, he called to have this tubing operation repeated. Dr. Richards, being in attendance that morning, introduced the tube in the same manner as it had been done, both by Dr. R. and myself, on many former occasions. At this time, however, a spasm, from some cause, was immediately induced; Dr. R. did not withdraw the instrument, but proceeded to inject, as at other times. By the time the operation was finished, the muscles of the

throat and chest were violently convulsed, and this was followed by a suffocative cough and profuse expectoration. This irritation, increased cough, and expectoration lasted during several days; but it finally subsided, and the patient ultimately regained a good degree of health.

I have before stated that Prof. Bennett has employed bronchial injections in the treatment of pulmonic diseases. In the *Edinburgh Medical Journal*, and in his work, recently published, on "Clinical Medicine," he has reported some most interesting cases, in which this method of treatment was employed.

Since the publication of the above work, by Professor Bennett, I have been favored with a letter from him, on the subject of bronchial injections, in which, among other things, he alludes to the occurrence of an accident, in his own practice, similar to those whose history has been given. He writes: "A gentleman, in the last stage of phthisis, with cavities in both lungs, and tubercles very generally distributed among them, after long treatment with the probang, allowed me to inject the bronchi. I did so, and he was immediately seized with the most violent dyspnœa. I thought he would have died in my study. It continued several days, and then gradually declined. After five weeks confinement to bed, he was restored to the same condition he was in formerly. This was six months ago. My opinion is, that he made a too violent effort to hold his breath and retain the catheter, and either ruptured an emphysematous portion of the lung, or caused a small abscess to break, as the operation was followed by abundant purulent expectoration."

In a letter which I have received during the present year, from the distinguished professor of Clinical Medicine in Paris, M. Trousseau, he, among other interesting statements made on topical medication, mentions the occurrence of an accident in his practice, from the use of nitrate of silver solution, under circumstances different from any that have come under my own observation. He remarks: "I often cauterize the interior of the larynx. I sometimes, but rarely, use a hollow caustic holder like that of Dr. Loiseau's, and I have also injected into the trachea solutions of nitrate of silver and sulphate of copper. This practice, in my hands, has never been attended by any danger, and I have never heard that Dr. Loiseau has had any accident to deplore.

* * * * I have introduced caustic solutions very frequently into the trachea and bronchial tubes, after tracheotomy, in cases of croup. For six years I never operated for tracheotomy without injecting austic solution." "Once this practice," continues M. Trousseau, "in

my hands, caused the immediate death of a child. The case was as follows: I had operated upon a child two and a half years old; he breathed very well. I dropped into the trachea ten or fifteen drops of a solution of nitrate of silver; a coagulation of thickened mucus, which was in the principal bronchi, immediately followed, and the child died, strangled, in less than a minute." "An accident of this kind," he adds, "can never happen if a sponge, moderately wet with the caustic solution, be used; and with the instrument which you use, a model of which you have sent to me, I cannot see how an accident can occur to the lungs."

It would also seem impossible that this accident, to which Prof. Trousseau alludes, could have resulted from the cause to which he refers it. He had used it frequently before in the same manner, during a period of six years, without the occurrence of any such accident.

During the last winter, it will be remembered that many severe cases of membranous croup and diphtheritic inflammation occurred in some of our larger cities. This was the case particularly in Boston, Mass., in which city the physicians have reported some almost hopeless cases that were saved through the combined measures of tracheotomy, followed by repeated injections of a solution of nitrate of silver, through the artificial opening into the trachea and bronchi. In one instance, as reported in the *Boston Medical and Surgical Journal*, in the case of a child, aged four and a half years, Dr. Gay, assisted by Drs. Bowditch and Perry, "injected through the artificial opening into the trachea, *every four hours*, about one-third of a tea-spoonful of the solution of nitrate of silver, of the strength of 20 grains to the ounce of water." This treatment was continued through several successive days and nights, and resulted in the complete recovery of the patient. It would seem, therefore, that in the case reported by M. Trousseau, the patient must have died from some other cause than the one mentioned, namely: dropping "ten or fifteen drops of a solution of nitrate of silver into the trachea."

Nor is there any need of the occurrence of any accident from the employment of catheterism of the bronchi, if proper cautions are adopted; for, with our present knowledge and experience in the use of this measure, it is one, we maintain, that may be employed with as much safety as any of our other remedial agents.

To the precautionary measures necessary to be adopted in topical medication I shall refer, after alluding to another danger.

When the attempt was first made to inject the trachea and bronchi, it must be remembered that there were no precedents, no

recorded cases, in which this practice had been adopted, to which we could refer, for guiding us in regard to the strength of the remedies, or to the amount of medicaments that could with safety be injected; consequently, it became necessary to proceed with much caution, in the inauguration of this practice. Fortunately, those persons upon whom the attempt was first made to employ this method of treatment, were among those patients who for a long time had been under treatment for laryngeal and bronchial diseases; to whose larynges the sponge-probang had been frequently, and for a long time, applied; consequently they were particularly well prepared for the introduction of the injecting tube, and for the employment of the injections; and it was for these reasons that bronchial injections, in the first instances in which they were employed, were better borne, and were accomplished with more facility, than they have been in most instances since. At any rate, I soon found that in recent cases, I had more difficulty in effecting the introduction of the tube, and that it was necessary to employ, at first, a *very mild* solution, which could be subsequently increased in strength. The following case will illustrate one of the difficulties to which I refer:

In September, 1854, Miss H., a young lady of this city, was recommended to my care, by her friend and physician, Dr. C——, for the treatment of a bronchial affection. The ordinary signs of bronchitis were very marked. Topical applications, of the nitrate of silver solution, were made to the glottis and larynx, and the general remedies, ordinarily recommended in such cases, were administered. This course of treatment was continued several weeks, without producing any decidedly beneficial effect upon the patient. About this time, I saw the patient, on several occasions, in consultation with the physician who had recommended her to my care. He advised a further perseverance in the plan of treatment, but suggested the employment of catheterism of the bronchi, (an operation he had seen performed, in similar cases, several times upon my patients,) if the present measures, after a further trial, should be unsuccessful. But her disease continued to resist the influence of those measures which had proved quite successful in the management of other, apparently similar, cases. On the 7th of November, therefore, the bronchial tube was, with some difficulty, introduced, and nearly a drachm of the solution injected into the bronchi. An unusual amount of irritation followed this operation.

The introduction of the tube induced a spasm of the glottis; the patient coughed severely, and complained, while she remained in my office, of pain in the larynx and bronchi. She, however, left, soon

after the operation, for her house, in the upper part of the city, but did not return for any further treatment. The subsequent history of her case was obtained afterwards, from herself and her mother.

The cough and bronchial irritation continuing after her return home, the patient and her friends became alarmed, and called in their ordinary medical attendant, who, in turn, called in a consulting physician, but both concluded to do nothing, for the irritation gradually subsided, and, along with it, the alarm of the patient and her friends; and, still better, the cough and bronchial disease, which had so long and so obstinately resisted other measures, entirely disappeared, and the young lady has continued in good health, up to the present time.

Spasms of the glottis will, as I have before stated, occasionally occur, caused by the irritation of the supra-glottic space, in the introduction of the tube, although great pains may have been taken to prepare the parts by previous training. In this case, I at first attributed the spasm and subsequent cough and dyspnoea to irritation, produced at the glottic opening. But from some observations and experiments which I have since made, I am fully satisfied that the disturbance in this instance, and probably in the case mentioned by Dr. Bennett, as well as in some others, similarly affected, was caused by the employment, at first, of a solution of too great strength.

I have recently instituted some interesting experiments upon animals, (the cat and dog,) in order to ascertain how strong a solution of nitrate of silver can be borne, when injected into the trachea and bronchi. I experimented upon these different animals, but found the results the same, under similar circumstances, in both the cat and dog. But I will detain the College with the history of only one case.

A young dog, eight months old, weight fifty pounds, was treated by bronchial injections. His jaws were opened by an assistant; a cord being placed around his tongue, it was readily drawn out of his mouth, when the epiglottis, and the opening of the glottis, were seen without any difficulty. I passed the tube quite readily into the larynx, and carried it down eight inches, into the trachea. Here it was allowed to remain several minutes, without producing the least disturbance, while the respired air passed freely through the tube. After a time I injected a small amount of a weak solution of the nitrate of silver through the tube into the lungs of the animal; but, as he did not seem to be at all affected by this, I soon after threw in half an ounce of a solution of the strength of fifteen grains to the ounce. After being released, he commenced playing about as usual, without showing a symptom of any disturbance whatever. The next day he appeared perfectly well, and

was as playful as ever. At 5 o'clock P. M. on the following day, I again introduced the tube into the dog's larynx, and conveying it down, nearly the whole length of his trachea, but not below the tracheal bifurcation, I injected into the bronchi the ounce syringe full of a strong solution of the nitrate of silver, of the strength of thirty grains to the ounce of water. This amount, in proportion to the weight of the animal, would be equivalent to three ounces of the solution of this strength to an adult. The respiration of the animal was not impeded at the time, nor did any signs of suffocation follow immediately this operation of injecting so large an amount of fluid into the air-passages. The dog, for a time, ran about as usual. At 7 o'clock, two hours after the operation, I visited him at his kennel, and calling him out, found him with tail hanging down, eyes dull, and breathing with some difficulty, and uttering occasionally a short cough. On listening to his sides, moist, bronchial, and crepitant râles were heard throughout both lungs. He was allowed to lie down in his kennel. At 10 o'clock I went to him again, when I found that all these symptoms had greatly increased; the dyspnoea was quite difficult, and the dog was disinclined to move about. He died during the night.

I examined the lungs the next day; the bronchial mucous membrane was highly inflamed. Both lungs were inflamed, and gorged with blood; and bloody and frothy mucus blocked up the bronchial tubes. The animal died, therefore, of inflammation of the lungs and bronchi, superinduced by the large and strong injection of a solution of nitrate of silver into the bronchi.

Remarks.—It is evident, then, that nitrate of silver may be used of that strength, and to that amount, in bronchial injections, as to prove fatal to animal life. So, also, may the too frequent use of all or of any of the potent remedies destroy life.

3rd. In relation, then, to the third inquiry, "What advantages are to be derived from this method of treatment?" I reply: bronchial injections of a solution of nitrate of silver, when judiciously employed, have proved to be, and will continue, I believe, to be, a valuable therapeutic means in thoracic disease.

In the commencement of this paper, I referred to the detailed report which was published by me, two or three years ago—a report containing a statistical table of one hundred and six cases of pulmonary and bronchial diseases, treated by means of catheterism of the air-passages, conjoined with appropriate general remedies. The following is the brief analysis given at the conclusion of the report of the above cases: "If we analyze the *one hundred and six cases*, re-

ported in the table, it will be found that *seventy-one* of the sum-total have been recorded as cases of *advanced phthisis*—cases in which tubercular cavities were recognized, in one or both lungs; and *thirty-nine* cases of *early phthisis*. Of the first division—advanced phthisis—*fourteen* have since died. *Twenty-five* were more or less improved; their lives, apparently, being prolonged by this means of medication. *Seven* only of the thirty-two cases of advanced phthisis were not benefited by the injections. Of the *thirty-nine* cases of *incipient tuberculosis*, *twelve* of this division have apparently recovered. *Five* more of this number are now, or were, at the last report, in the enjoyment of a good degree of health. These five cases were classed by my assistant, Dr. Richards, with the twelve recoveries; making *seventeen*, in all, of the thirty-nine cases of early tuberculosis which have apparently recovered.

“Of the remaining *twenty-two* cases, many of whom are still under treatment, *seventeen* have been greatly improved by topical medication; *three* more have been moderately benefited; while *three* only have failed to obtain any advantage from the local measures which have been adopted.

“Of the *twenty-eight* cases of bronchitis, *sixteen* have been dismissed, cured, or so much improved as to require no further treatment. All the others have been greatly benefited.”*

This method of treatment, in this class of diseases, has been continued, more or less, since the report to which I have referred was made; and such has been the amount of success which has continued to attend this plan of treatment up to the present time, I am now ready to affirm, after an experience of many years, in a field of observation unusually large, that, *if I was required to relinquish all other known therapeutic measures or topical medication in the treatment of thoracic diseases, I should choose the latter, with hygienic means alone, in preference to the entire class of remedies ordinarily employed in the treatment of these diseases.* But I shall now refer briefly to the opinion of other physicians as to the value of this mode of treatment.

In chronic bronchitis, in asthma, and in early tuberculosis, cauterization of the air-passages has been found to be a most valuable and efficient remedy. As I have stated, topical medication, in the treatment of thoracic diseases, has been continued in my hands since the

* See published “Report of One Hundred and Six Cases of Pulmonary Diseases, treated by Bronchial Injections,” &c., pp. 34-5.

publication of the "Report of the One Hundred and Six Cases" to which reference has been made. During this period of three or four years, large numbers of patients, affected with chronic laryngeal and bronchial diseases, with asthma, and with tubercular phthisis, have been treated, and the success which has continued to attend this practice has served to increase greatly my confidence in this measure, as a therapeutic agent. I shall, however, omit a detail of any of these cases coming under my own observation, and only refer briefly to the opinion of other physicians on the value of this mode of treatment.

At a meeting of the French Academy of Medicine, subsequent to the reading of M. Loiseau's paper on Catheterism of the Larynx in Disease, a very favorable report on the management of some of the diseases of the air-passages by this method was adopted; the commission making the report declaring that catheterism of the air-passages in the treatment of diphtheritic inflammation and other kindred affections is not only practicable, but is of great utility.* "I believe this method," said M. Velpeau, "to be a good one. While diphtheritis is at the opening of the air-passages, it is curable, and M. Loiseau has ascertained that it is not difficult to carry medications into the larynx."†

"As a therapeutic means," says the editor of the *Gazette Médicale de Paris*, "it merits a more serious attention. What is the relation of cauterization to croup? It is a powerful, energetic means, *the only one which, up to this time, has really succeeded*. When the disease is limited to the upper part of the air-passages, we cauterize, and all practitioners agree that this means is truly of great benefit. What is laryngeal cauterization other than carrying beyond the limits of ordinary cauterization, a remedy recognized as good, efficacious, not only against the essence of the disease itself, but also against the pathological secretion?"‡ And the learned editor of the *Gazette Hebdomadaire*, after calling attention to what had been done in America in the treatment of croup by cauterization, adds: "These experiments should be repeated by us, with that attention which the authority and the honorable position of our American *confrères* command. M. Loiseau, anticipated, as it is seen, in every particular, has given us, however, a useful example, and his merit will still be great if he succeeds in introducing into use a practice worthy of more attention than it has yet received."§

* See *Union Médicale*, Aug., 1857.

† Ibid.

‡ Ibid.

§ *Ut supra*, Aug., 1857.

During the last year, the *Gazette Hebdomadaire*, and other French journals, have contained the histories of several severe cases of diphtheria, which, under the care of Loiseau, Trousseau, Gros, and other physicians of Paris, were successfully treated, by catheterism of the larynx. In alluding to one case reported by M. Gros, where the diphtheritic inflammation had extended deeply into the air-tubes, threatening immediate suffocation, but which was permanently cured by injections into the larynx, the editor of the *Gazette Hebdomadaire* says:

“This fact has an important practical signification, and speaks loudly in favor of the advantages which may be derived from catheterism of the air-passages, and from topical applications, carried by this measure directly into the larynx and trachea.”*

Indeed, M. Trousseau has quite recently expressed, before the French Academy, his want of confidence in all the ordinary violent remedies in the treatment of croup, such as severe vomiting, blisters, leeches, etc., declaring his belief that we must place our main dependence upon direct catheterism, or cauterization of the air-passages, followed, if this measure is unsuccessful, by tracheotomy.

In Dr. J. Hughes Bennett's work, to which I have already alluded, he has devoted a chapter to the consideration of “Injections of the Bronchi in Pulmonary Diseases.” He remarks, “Whilst tuberculosis is at first a constitutional disease, its localization in any part reacts more or less on the general health; and the opinion I have long entertained, that any means which could enable the physician to act directly on the tissue of the lung or inflamed bronchi, would assist his efforts at cure, at once led me to take a favorable view of this new mode of treatment. The nitrate of silver ought to act as beneficially on the mucous membrane of the trachea and bronchi as on that of any other hollow viscus, and we have seen previously that the remedy may be applied to the tracheal mucous membrane, by means of an artificial opening, not only without injury, but with decided benefit.” He further adds, “Without entering into minute particulars, I have only to say that I have confirmed the statements made by Dr. Horace Green.”

The cases in which Dr. Bennett employed this method of treatment, as he states in his work, were, patients “affected with phthisis in various stages, with laryngitis, and in chronic bronchitis, with severe paroxysms of asthma. In other cases in which I attempted to pass the tube, it was found to be impossible; in some because the epiglottis

* *Gazette Hebdomadaire*, Sept., 1858, p. 660.

could not be fairly exposed, and in others on account of the irritability of the fauces, and too ready excitation of cough from pressure of the spatula.”*

This, then, is only a part of what has been done in France, Germany, England, and Scotland, in the employment of topical medication in disease. In some of these countries, far more extensive observations on this mode of treatment have been made than in our own country; certainly, more than in our own city! But I shall not stop here to compare the careful inquiries, the scientific observations made, and the frankness and candor exhibited, by the profession of other countries, on this subject; with the course pursued by many of my “American confrères;” nor, especially, with the *non-committalism* of the *New York Academy of Medicine*, before which body this matter of catheterism was first brought; and whose report on this subject has slept for five years, unmolested, on their table!

If necessary, I could give the opinion of many other practitioners, in Europe and America, who have tested topical medication, in the treatment of diseases of the air-passages, and who profess to have derived signal advantage from this therapeutical measure.

I will only refer to some favorable testimony from some parts of our own country. During the last year, as it was remarked on a former page, croup and diphtheria were more than ordinarily prevalent in some of our larger cities. This was the case particularly in Boston; and here, many very severe cases of diphtheria occurred, and some almost hopeless cases were saved by cauterizations of the larynx; and others, by tracheotomy; followed by repeated injections of a solution of nitrate of silver, through the opening, into the trachea and bronchi.

In a report of some most interesting cases of the disease, read before the Boston Society for “Medical Improvement,” and subsequently published in the *Boston Medical and Surgical Journal*, Dr. Gay says, “After tracheotomy, and the insertion of the tube, the injection of a solution of nit. argent. through the tube, into the trachea and bronchi, is our strongest dependence, and most of the other measures are mere auxiliaries.” “In seven cases of decided membranous croup,” says Dr. Gay, “in which these combined measures were employed, and in which the membrane was expelled through the tube, there have been *five recoveries*, and *two deaths*.” Many other severe cases were successfully treated by cauterizations of the larynx and trachea, employed before the operation of tracheotomy became imperative.

I shall close this paper by describing the method I employ in prac-

ting catheterism of the bronchi. I have received letters from many medical men, requesting me to give them an account of the manner of performing the operation, and a description of the instruments employed. As it has been, and is, impossible for me to comply with all these individual requests, I cannot do better than to reproduce the directions I sent to Prof. J. Hughes Bennett, who several years ago wrote to me, desiring me to send him a description of the operation, and a set of the instruments I employed. My reply is published at length in Prof. Bennett's recent volume of "Clinical Lectures," from which I shall extract.

"I would, with pleasure, send you the instruments I employ, but they are simple, and may be obtained at any surgical instrument maker's shop. They consist of an ordinary flexible, or gum catheter, and a small silver, or glass syringe. The catheter is Hutching's gum-elastic catheter, (No. 11 or 12,) which is $12\frac{1}{2}$ inches in length; and, as the distance from the incisor teeth to the tracheal bifurcation is, ordinarily, in the adult, about eight inches; if this instrument is introduced so as to leave only two inches of the catheter projecting from the mouth, its lower extremity must, of course, (if it enter the trachea,) reach into one or the other of its divisions. I first prepare my patients by making applications, with the sponge-probang, and nitrate of silver solution, for a period of one or two weeks, to the opening of the glottis and the larynx, until the sensibility of the parts is greatly diminished. Then, having the tube slightly bent, I dip the instrument in cold water, (which serves to stiffen it for a moment, and obviates the necessity of using a wire,) and with the patient's head thrown well back, and the tongue depressed, I place the bent extremity of the instrument on the laryngeal face of the epiglottis, and gliding it quickly through the rima glottidis, carry it down to, or below, the bifurcation, as the case may require. It is necessary that the patient continue to respire, and the instrument is most readily passed during the act of inspiration. The tube being introduced, the point of the syringe is inserted into its opening, and the solution injected. This latter part of the operation must be done as quickly as possible, or a spasm of the glottis is likely to occur. Indeed, if the natural sensibility of the aperture of the glottis is not well subdued by previous applications of the nitrate of silver solution, or if the tube, in its introduction, touches roughly the border or lips of the glottis, a spasm of the glottis is certain to follow, which will arrest the further progress of the operation. The *epiglottis, which is nearly insensible*, (and this you may prove on any person, by thrusting two fingers over

the base of the tongue, and touching, or even scratching, with the nail, this cartilage,) should be our guide in performing the operation. The strength of the solution, for injecting, is from 10 to 25 grains to the ounce of water. Commencing with 10 or 15 grains to the ounce, its strength is subsequently increased, and the amount I now employ is from $\frac{1}{2}$ to $1\frac{1}{2}$ drachms of this solution.”*

Allow me further to add, that, latterly, in commencing the injections, I have used a solution still weaker than above denoted. When my patients are prepared for catheterism, by repeated cauterizations of the opening of the glottis and larynx, to reduce the normal sensitiveness of the parts, the tube is then introduced, and a drachm of a solution of nitrate argent., of the strength of from 5 to 10 grains to the ounce of water, is injected through the trachea. Afterwards, the solution may be gradually increased in power; but, at the present day, I seldom employ the remedy, in bronchial injections, of a strength above 20 grains of the salt to an ounce of water.

Should a spasm of the glottis occur, as I have before remarked in this paper, on the insertion of the tube into the larynx, the instrument should be promptly withdrawn, and no further attempt be made to proceed with the operation, until the irritation has fully subsided. It is necessary that the applications of the sponge-probang be continued in the intervals of the employment of the tube.

In cases of bronchitis, in asthma, and in early phthisis pulmonalis; even, the use of injections into the bronchi, once or twice a week, operate to diminish the cough, expectoration and dyspnoea, with great certainty, and very many cases of these diseases have recovered under local treatment, after other measures had failed.

On the Resuscitation of Children Born Still. By WILLIAM C. ROGERS, M.D., Green Island, Albany Co., N. Y.

FIRST ARTICLE.

The subject which I propose to treat in this article is one of great importance, but one which has received little or no elaborate treatment at the hands of the profession. A few general directions are given for the resuscitation of the asphyxiated neonatus in the standards on Midwifery, but, aside from the few cases reported in this paper, I have not seen a single other notice of this important subject in the wide range of medical journalism, which I have diligently searched for the past eighteen months.

* “Clinical Lectures on Medicine,” pp. 608-9.

In presenting the facts which I have collected, I shall give the reporters' names, the journals or works in which the facts were given to the profession, and the facts themselves, where convenient, in the very words of the reporters. A few facts in reference to the prolonged retention of life by infants who have not breathed, and by infants born still, I shall present at length; the others I shall give in tabular form, best calculated to present them in a compact and striking manner.

The prolonged retention of life by viable infants who have not breathed is a subject bearing directly upon the question under consideration, and I propose to present briefly a few experiments and facts, originally given to the profession in the *Gazette Hebdomadaire* for Dec. 1, 1854, in the *Vierteljahrschrift f. Hoprakt. Heilkunde*, t. iii., 1854, and in the *Assoc. Med. Jour.*, Dec. 8, 1854, and copied from the latter into the *Am. Jour. Med. Sci.*, July, 1855, pp. 264, 266, incl.

The experiments of Legallois show that, in the mammalia, the fœtus that has not breathed can resist death from submersion much longer than the fœtus in which respiration has been carried on. Puppies and kittens, immediately after birth, may be kept under water for twenty-eight minutes with impunity; when five days old, they perish after sixteen minutes' submersion; and, when fifteen days old, they die as rapidly as other warm-blooded animals of any age from deprivation of air. The human still-born fœtus can probably live longer without respiration than any other mammalian fœtus. The following cases are collected in the *Gazette Hebdomadaire* for Dec. 1, 1854, from different sources. They are very striking and very suggestive to the practical accoucheur:

Case 1.—A woman aged 25, who had tried to conceal her pregnancy, was delivered when seated on a tub. The infant was born without any signs of life, was buried in a sand-pit, and after remaining there for half an hour, was removed, and lived. (Dr. Wesse, in *Badisch. Ann. f. Staatsarz*, x., 2, 1845.)

Case 2.—In 1850 a young woman was tried by the tribunals of Berlin, who had buried her new-born male infant, believing it to be dead. After an hour, the infant was disinterred, and recalled to life.

Case 3.—T. P., a servant, aged 23, was delivered in a stable, when leaning against a wall, alone, and in a state of unconsciousness, about half past 4 A. M., Oct. 16. When she came to herself she took the infant, which was perfectly cold, and with the placenta attached, wrapped it up in her apron, and buried it. At half past nine she confessed what she had done, and the infant was dug up from the depth of one foot. It was lying on its face, with the placenta under the abdomen. It was cold, pulseless, and apparently dead, yet the

cord was tied; means were used to reanimate it, and after two hours it cried and took the breast greedily, seven hours having elapsed from its birth to the establishment of respiration. On the 19th it died of convulsions. The case is reported by Dr. Maschka.

Case 4.—A woman gave birth to a child, born still, about noon. Unsuccessful attempts were made to reanimate it for an hour. It was considered dead, and in three hours removed to a cold room. Season, January, and very cold. Here it remained in a coffin all night, with the windows open. At 11 A.M. on the following day—23 hours after its birth—Dr. Maschka saw the child. It was perfectly cold and blue; the eyes and mouth were shut; the joints and the extremities were flexible; there was neither rigidity nor cadaveric discoloration. Astonished at this latter circumstance, Dr. M. applied the stethoscope over the region of the heart, and heard it pulsating feebly and at long intervals. Unsuccessful attempts at resuscitation were made. At the autopsy on the following day, cadaveric discolorations and rigidity were present; the lungs were of a deep red, contained no air, and were heavier than water. It must be admitted—provided the observation of the reporter be correct—that this infant lived twenty-three hours after birth, and never breathed.

Case 5.—A woman was tried for attempting infanticide. She had buried her child in the garden, and it was, after *forty-five minutes*, disinterred from the depth of two inches. It lay on its face, with the placenta attached. The child was resuscitated, and lived.—*Gaz. des Trib.*, Feb. 20, 1850.

Dr. Maschka gives the following summary:

1. New-born infants can live without breathing, under the most unfavorable circumstances, considerably longer than an hour.

2. In such cases, there is obviously not only an arrest of blood in the capillaries of the skin, but the vessels of the different organs are either in a state of permanent contraction, or are filled with a column of stagnant blood.

3. The movements of the heart must gradually become very slow.—*Am. Jour. Med. Sci.*, July, 1855, pp. 264-6.

Dr. J. P. Ouvrard, of Angiers, in his *Méditations sur la Chirurgie Pratique*, (cited in *Am. Jour. Med. Sci.*, vol. iv., 1829, pp. 247-8,) presents the following remarkable case: On May 14, 1825, Dr. O. examined a male infant born the preceding day at the Maternité, after an ordinary labor. The child had lived 14 hours, as was affirmed by patients and students of midwifery. The child measured 15 inches 9 lines in length, 8 in. 9 lines from the top of the head to the umbilicus, and 7 in. thence to the sole of the feet; was well formed, weighed $4\frac{1}{2}$

lbs.; hair and nails well developed. Dr. O. thought it born at the 8th month. There was a lump on the occiput filled with extravasated blood. The dura and pia mater, just beneath the posterior fontanelle, were ecchymosed, and of a dark color. The lungs were dense, reddish, and heavy, and sank in water in substance and when cut into small pieces. When pressed in water, no air escaped. A few bubbles of air escaped from the right lobe. Aside from this, there was no crepitation.

Dr. O. saw another child which lived 6 hours with no evidence of its ever having breathed, and asks the question, Does cutaneous respiration suffice in these cases for the momentary support of life?

A *résumé* of these cases presents the following points:

Case 1. Born still: buried: resuscitated in 30 mins., and lived.

" 2. " " " 60 " " "

" 3. " " " 7 hrs., and lived 3 dys.

" 5. " " " 45 mins., and lived.

" 4. " attempts to resuscitate failed: 23 hours after, heart beat feebly, and at long intervals; died.

" 6. " lived 14 hours and then died, never having breathed.

In Cases 4 and 6, there were no evidences of the subject's having breathed.

Dr. O's last case lived 6 hours and then died, never having respired.

Cases 1, 2, 3, 4, and 5, were all subjected to the conservative influence of cold, whereby the cutaneous circulation was greatly depressed, or even arrested. There was consequently but a slight waste of the tissues, little demand for vitalized blood, and less consequent demand for air by respiration. I will call attention again to these facts when considering the proper means to resuscitate the still-born child. Their practical bearing is such as to give them an interest and an importance additional to that which attaches to them as extraordinary, rare, and exceptional cases. They stand in the light of experiments for the resolution of a very important problem, and as such possess great scientific value and interest, as do also the three following cases:

Dr. G. W. Thornton, in the *Cincinnati Lancet and Observer*, Feb., 1858; quoted in *Am. Jour. Med. Sci.*, April, 1858; *N. Y. Jour. Med. Sci.*, Nov., 1858, p. 447. The mother died suddenly, while in labor, from some unascertained cause. Forty minutes elapsed after the last expiration of the mother before Dr. Thornton arrived. On examination, he found that the membranes had been ruptured, that the head was in the cavity of the pelvis, the vertex presenting at the inferior

strait. Dr. T. raised the foetal head, passed the hand into the flaccid womb, turned the child, and extracted it as far as the head without delay: at this point it momentarily hung, until assisted by the fingers in its mouth. Thus forty-five minutes elapsed from the last expiration of the mother to the complete extraction of the child. The child did not breathe, and was of a bluish color; but a slight ticking could be heard on placing the ear over the heart. The fauces were cleared, Marshall Hall's Ready Method then diligently practiced for half an hour, when a convulsive inspiration took place. This method was persevered in, assisted by aspersions and frictions, and at length respiration was established. The child, a boy of average size, lived three weeks and two days, and then died of neglect.

In vol. xii., part 1, pp. 46, 51, inclusive, of the *Med.-Chir. Trans.*, J. H. Green, Esq., Surgeon to St. Thomas' Hospital, reports a case in substance as follows:

April 15, 1820, a woman 30 years of age, in the 9th month of pregnancy, was run over by a coach and carried into St. Thomas' Hospital, where she died in 20 minutes. Mr. Green and Dr. Blundell performed Cæsarian section within fifteen minutes after the last respiration of the mother, and the child was removed still. A tracheal pipe was introduced, and artificial respiration kept up for 15 minutes, in connection with alternate warm and cold baths, when there were signs of returning life. In five minutes more the child breathed three times; and after 52 minutes of prolonged efforts at resuscitation, the child opened its eyes, and lived 34 hours after its extraction from the mother, and then died from neglect and mismanagement.

Dr. Blundell gives an imperfect sketch of the same case in his chapter on "Delivery after the Death of the Mother," in his "Lectures on the Principles and Practice of Midwifery," (edited by Chas. Severn, M.D., Philadelphia, 1842, pp. 371-2.)

Another case was reported in the *Berlin Med. Zeit.*, July 6, 1856. Mrs. H., 41 years old, in the 8th month of her 9th pregnancy, died of puerperal convulsions, after a labor of 31 hours: the child's head presented; the physician in attendance introduced his hand into the flaccid uterus, and in 15 minutes after the mother's death, and 20 hours after the rupture of the membranes, delivered a still child, which was resuscitated in 15 minutes, and lived.

A *résumé* of these three cases presents the following:

Thornton's Case.—Born 45 minutes after mother's death. Ready Method used for 30 minutes; child resuscitated, and lived 3 weeks and 2 days.

Green's Case.—Born 15 minutes after the mother's death: artificial respiration enabled it to attempt to breathe in 5 minutes, but 52 minutes elapsed before respiration was perfect: child lived 34 hours, and died of neglect.

The Berlin Case.—Born 15 minutes after the mother's death: revived in 5 minutes, and lived.

Length of time intervening between the mother's last breath and the establishment of the child's respiration was 75 mins., 72 mins., and 20 mins. Under proper care, we have every reason to believe that the result in the first two cases would have been as gratifying as in the last.

When we reflect that observation by experiment is less applicable to the solution of physiological than of physical or chemical problems, the value of the facts just detailed is most apparent. Physiological phenomena are in general so complex, that in conducting experiments, it is impossible to limit their effects to the organ or function under examination, or to clearly analyze the complex perturbations, and to assign to each organ and function its share in the production of the artificial phenomena. A much more scientific, because simpler and more manageable, method of experimentation, is that in which the organism is affected by experiments instituted upon the food, liquid, solid, and aeriform, upon the exercise, and upon the various habits of life. In this manner we are enabled to induce certain abnormal phenomena suggestive, or in confirmation of, the true theory of the physiological state. Now, the antecedent facts may be regarded in the light of experiments upon the environment, or surroundings of the neonati; experiments which, from the value of human life, no one would deliberately, and in the spirit of scientific research, make; and their value is correspondingly great. They are evidently too few in number to form the basis of reliable calculations, but they tend to show that the limits within which the child's life *may* be preserved are far greater than is generally supposed; and a knowledge of that fact might encourage some of us to labor perseveringly, and perhaps successfully, in cases apparently as hopeless as any of the above. Every new case is a new problem in and of itself, and not an *average*; but the value of collecting many cases and tabulating them is this—it informs us of the limits within which the proposed problem has been successfully solved; and it becomes our duty to labor at least up to those limits, in the conscientious discharge of our functions as preservers of human life.

I come now to consider the means by which the still-born child has been resuscitated, the *rationale* of those means, and the indications of their use, using the following facts as the basis of my inferences:

T A B L E.

No.	By whom and where reported or communicated.	Age of Mother.	Mother's condition before and during labor.	Character and duration of the labor.	Condition of child at birth.	Means used to resuscitate the child.	Time before respiration was established.	REMARKS.
1	Dr. Patterson, in <i>Dub. Quart'ly</i> , cited in <i>Med.-Chir. Rev.</i> , July, 1833, p. 265.	24	Premature labor at 8th month, induced by fright.	1st labor, 30 hours' duration.	Still: funicular circulation languid, with feeble motion of the limbs.	Artificial respiration, external warmth, and nasal irritation used in vain for 10 minutes. Water of 60° dashed over it, and used as a bath, with frictions to abdomen; revived.	From 10 to 15 minutes	Child recovered and lived. First recorded instance I can find of the use of cold water for this purpose.
2	J. Toogood, Esq., in <i>Lon. Med. & Phys. Jour.</i> , Aug., '27, <i>Am. J. Med. Sci.</i> , 1827, pp. 228 & 9. Dewees, <i>Mid.</i> , 5th edit., pp. 193 & 4.	.....	Far advanced in phthisis.	First labor at term; much hæmorrhage.	Still.	Artificial respiration with tracheal tube.	35 minutes	Lived. Mr. T. claimed this method as his own. Dr. D. stated that he had used it over 40 years.
3	<i>Ibid.</i> , <i>ad supra</i>.	.....	.....	Funis presentation; slow labor.	Still.	<i>U! supra</i> .	30 minutes	Child lived.
4	<i>Ibid.</i> , <i>ad supra</i>.	.....	.....	Arm presentation; tedious labor.	Still.	<i>U! supra</i> .	45 minutes	Lived.
5	<i>Ibid.</i> , <i>ad supra</i>.	.....	Mother weak and in bad health.	2nd labor: head and funis presentation; slow labor.	Still, and neglected for half an hour.	As above for 25 minutes before any visible signs of animation: continued 10 mins. longer before child resuscitated.	70 minutes	Lived.
6	M. Higginbotham, in <i>Lancel</i> , Am. ed., Feb., 1857, p. 173.	.....	.....	Breech presentation; cord pulseless.	Still.	Hall's Ready Method.	20 minutes	1st case in which the Ready Method was applied after it was announced by M. Hall.
7	Chas. Vandiu, in <i>Lancel</i> , Am. edit., June, '57, p. 487.	.....	Mother delicate, and with small pelvis.	2 folds of funis around child's neck, and pulseless.	Every appearance of being dead.	Hall's Ready Method.	31 minutes	

TABLE — (Continued)

No.	By whom and where reported or communicated.	Age of Mother.	Mother's condition before and during labor.	Character and duration of labor.	Child's condition at birth.	Means used to resuscitate the child.	Time before respiration was established.	REMARKS.
8	Communicated by Dr. P. M. Womble, Baltimore.	.....	.....	Breech and funis presentation.	Still.	.....	30 minutes	.....
9	Communicated by Dr. T. J. McKew, Baltimore.	.....	.....	Vertex and funis presentation; forceps used.	Still.	.....	45 minutes	.....
10	Communicated by Dr. T. G. Thomas, New York.	.....	.....	Same as No. 9.	Still.	Ready Method.	15 to 20 mins.	.....
11	Communicated by Dr. C. R. Gilman, New York.	.....	.....	Shoulder and funis presentation; delivery by version.	Still.	Ready Method.	30 minutes	.....
12	Communicated by Dr. J. F. Jenkins, Yonkers, N. Y.	.....	.....	Feet and funis presentation; cord pulseless 25 minutes before delivery.	Still.	Ready Method.	Gasped in 30m., but did not breathe naturally for over 2 hours.	.....
13	Jas. Nichols, in <i>Lancet</i> , <i>ul sup.</i> , p. 488.	.....	.....	3 days' labor: partial placenta previa; both hands down; version.	Still.	Ready Method.	Over half an hour.	.....
14	H. G. Skinner, in <i>Lancet</i> , Sep., '57, p. 262.	.....	.....	Head & funis presentation.	Still.	Ready Method.	30 minutes	.....
15	Jno. Mills, M.D., <i>Lancet</i> , Oct., '59, p. 288.	.....	.....	12 hours' labor.	Child cold, blue, pulseless, with great quantities of dark sanguine fluid discharged per orem.	Alternate hot and cold baths useless. Hot bath and artificial respiration with tracheal tube successful.	over 30 minutes	.....
16	Dr. McWhorter, in <i>Ed. Jour.</i> , Jan., '55, cited in <i>Am. Jour. Med. Sci.</i> , 1836, p. 249.	.....	.....	Breech; tedious labor; body and head long <i>in transitu</i> .	Funis twice around child's neck; funis and heart pulseless.	Warm bath; artificial respiration; frictions; child sobbed in 40 or 50 minutes.	Breathed in 1½ hour, and lived.	.....

17, 18. Dr. Warren, in *Charleston Med. Jour.*, Jan., 1858, (*B. and F. Med.-Chir. Rev.*, July, '58, pp. 211-12,) reports two cases of children born still, and resuscitated by the Ready Method, 1 in 30 and the other in 35 minutes.

19. Dr. Gould reported a case to the Boston Society for Medical Improvement, of a still-born child resuscitated by efforts continued for one hour.

20. Dr. Henry Madge reports (*Lancet*, Oct., 1857, p. 338,) a case resuscitated in rather more than half an hour.

21. In February, 1857, I attended a woman in her second labor, of 12 hours' duration. She was delivered of a large male child, still, which was resuscitated in 20 minutes by artificial respiration, dashes of cold water, and frictions. The mother's pelvis was small, and her first child had been born still, and died.

22. In July, 1858, attended a woman 17 years old, in her first labor, of 9 hours' duration. She suffered severely, and I administered chloroform. The child was born with the cord *five and one-half times* around its neck, pulseless. The child was still, but was resuscitated in 30 or 35 minutes, by frictions, cold dashes of water, and the Ready Method, and lived.

23. In October, 1858, I attended a woman, aged 28, in her third labor, of six hours' duration: breech presentation; child a female, born still, and resuscitated, after great labor, in 20 minutes, by frictions, cold bath and cold douches, and the Ready Method.

24. April 26, 1859, attended a lady 25 years old, in her third labor, and delivered her of a premature child born at $7\frac{1}{2}$ months, very small, dry, wrinkled, appearing about 80 years old, and weighing about 5 pounds. It was still, but was resuscitated in 20 minutes by the Ready Method, but required frequent recourse to the Method for over an hour to preserve it. It lived, and is now doing well on a very small scale.

If we confine our attention, at present, to the cases born still, such cases as we are liable to meet at every labor we attend, we have 24 cases born still and resuscitated by artificial respiration, by baths, hot and cold, by frictions, and by Marshall Hall's Ready Method, applied singly or jointly, from 10 to 90 minutes; the average period intervening between birth and the establishment of respiration being 35 minutes, 30 seconds.

In the case of infants born still, reasoning from the above figures, it is safe to infer that we should continue our efforts at resuscitation from 30 to 40 minutes, and as much longer as the case continued to

hold out any, even the slightest, inducements to persevere. If a child presented no indications of incipient or actual decomposition at birth; if its limbs continued supple, and there was the faintest action of the heart, I should consider myself derelict if I did not continue my efforts to save the child alive for at least one hour. The vital forces are sometimes so tenacious, and human life is so valuable, means and accomplishes so much, that no effort should be spared to awaken the latent forces, to arouse the dormant and sinking energies of nature.

If we add to these cases the one buried and revived in 30 minutes, the one buried and revived in 60 minutes, the one buried and revived at the end of 7 hours, and the one buried and revived in 45 minutes, and the three cases of *posthumous* children—one resuscitated in 75 minutes, one 52 minutes, and one 20 minutes after the mother's last respiration—we then have 31 cases of still-born children living without respiration 1,553 minutes, and all ultimately recovering; being an average of 50 minutes of suspended animation for each child.

With these exceptional cases, the inference becomes much stronger that the still neonati should have the benefit of at least one hour's labor from the physician—nay, it seems to me that the demand becomes imperative to labor for the life one hour, yes, *hours*, if there is the faintest inducement to persevere.

The three cases wherein the heart pulsed at intervals, and the limbs remained supple and lifelike—in one 23 hours, in one 14 hours, and in one 6 hours after birth—indicate the value and necessity of careful auscultation, in every case where our efforts at resuscitation are fruitless of success. Should such a case occur, might not good results be expected from the galvanic battery or from electric shocks applied to the nuchæ and epigastrium? When Nature performs so remarkable an experiment in our presence, she invites us to imitate her example, and exhaust our resources, before we yield the palm to death.

There is another case of interest in this connection—that one reported by Dr. J. Foster Jenkins, of Yonkers—wherein the funis was pulseless for 25 minutes before delivery, and no attempt was made at respiration for 30 minutes after birth, and over 2 hours' constant attention was necessary to preserve the child's life. This case is valuable from the fact that it warns us never to desist from our labors in a funis case to resuscitate the still-born child, because the funis was pulseless for some time antecedent to birth. The powers of nature may be held in abeyance, as in the numerous instances I have cited in this paper, and in a number of similar instances which I have tabu-

lated, and intend soon to publish, under the title of *Statistics of Pro-lapse of the Funis*. If one or a dozen such cases have occurred, it increases the doubt, of which we are to give the neonatus the benefit.

Account of an Epidemic Diphtheria in the Southern Part of Pennsylvania. By F. S. COSKERY, M.D., Baltimore, Md.

On the sixteenth of October last, having occasion to visit a town in the southern part of Pennsylvania, I availed myself of the opportunity to examine into the nature of an epidemic diphtheria, raging in the neighborhood. In this examination I was much aided by the polite attentions of Dr. Seiss, an excellent practitioner of the region. During the two days of my stay, I had an opportunity of seeing sixteen cases of the disease.

In this epidemic, as far as I could ascertain, the cases all presented great similarity in their rise, progress, and termination. Although manifesting a decided preference for children, the disease, however, did not hesitate to attack older subjects, after the young material had been exhausted. At the period of my visit, it occupied an area of about forty-eight square miles—a tract of country of a rectangular form, about twelve miles long by four broad. It seemed utterly regardless of the laws which usually govern or modify epidemics. Filth or cleanliness—a vigorous or feeble constitution, good or bad habits, wealth or poverty, healthy or unhealthy situations, hill or valley, localities dry or humid, care or imprudence; none of these seemed to exert the slightest modifying influence—neither inviting nor repulsing it. It attacked as well as avoided all these conditions.

The disease had been raging with frightful violence for about (I believe) three weeks, up to the time of my visit, and still is, or was a short time since, lingering in the neighborhood, although on the wane, and, in a great measure, shorn of its terrors. The symptoms were as unique as the epidemic itself. First and prominent among the symptoms was *excessive debility*, which continued throughout the disease, terminate as it might. The following is the description given me by a young man, about 20 years of age, who had been attacked by the disease—which description may be considered as applying to every case in the progress of the epidemic: The debility always manifested itself in some way peculiar to the age and condition of the victim—looming out unmistakably prominent, as a sure indication of the terrible constitutional injury. The narrator said that, while ploughing in

the field and feeling as well as usual, he was suddenly seized with "such an excessive weakness" as compelled him to sit down, holding on to his plough-handle for support. After a few minutes, the debility, in a measure, passed away, and he resumed his occupation; but a few steps were taken, when he was again compelled to stop and rest. Finding himself unable to pursue his work, he started for the house, (distant about one hundred and fifty yards,) which, after great effort and frequent restings on the road, he reached in a state of complete prostration, and "was glad to throw himself on the floor to rest."

The throat, or indeed any other part of the body, was rarely complained of in the early stage of the attack. The excessive and general debility continued, without any attendant symptoms, for from six to eighteen hours, when the patient complained of a roughness, dryness, or burning, "*sticking*" sensation in the throat. When the throat was examined, it presented an appearance as if painted over with vermilion, and afterwards highly varnished. There was not much pain or swelling—deglutition not interfered with—cerebral functions unimpaired—disinclination to answer questions or to converse, (this appearing, however, to be the result of a wish to avoid the exertion rather than of pain or lethargy)—bowels generally quiet—kidneys frequently acting freely in the early stage, although, as the disease progressed, the secretion of urine partially ceased. The pulse, of course, was extremely feeble and frequent. The peculiar appearance of the throat, if the disease was not checked, would continue for six, twelve, or eighteen hours; when patches, of a peculiar bluish-gray, would be observed occupying the whole of the posterior portion of the fauces, varying in size from a pin's head to a dime. His third stage, or phase of the disease, would continue (if unarrested) for about the same length of time the other stages occupied, when the last, and (if I understood the attending physicians correctly) invariably fatal, stage would occur—the croupal respiration, with swelling of the cervical glands.

A frightful and fatal disease, rapidly becoming epidemic, new and unknown to the majority of the profession, springing suddenly upon an unguarded and unprepared faculty—no time being given from their severe and exhausting labors for much reading or consultation with authorities and journals—must have taken the practitioners of this region at great disadvantage, although a more faithful body of skillful and indefatigable physicians could not be desired in any country district.

At first, the disease was supposed, by some, to be the resurrection of the old-fashioned putrid sore throat, which was so fatal before scarlatina took its place, or rather which seemed to merge itself into the

latter disease, rendering it the formidable disease it has of late become. Others thought it a form of scarlatina maligna—although few, who have seen the disease, entertain the idea of its connection with either of these diseases. There was not, in my mind, the slightest doubt as to its being genuine *Diphtheria*, so fully and satisfactorily described by late writers in the "*London Lancet*," and other European journals.

Availing myself of information derived from reading the reports communicated in the journals, I ventured, most respectfully, to suggest, to the gentlemen in attendance on the cases I saw, the adoption of the treatment recommended and adopted generally by the European writers, viz.: free, energetic, and persistent tonic or sustaining constitutional treatment, together with a strong solution (3j. to f.3j.) of nitrate of silver as a topical application to the fauces in the first stage, or the stick to the patches, if neglect or accident permitted their appearance. I very much doubt whether the ash-colored patches would appear, if the parts were freely mopped with the solution named, and if, above all things, the constitution were supported; nor do I think that the croupal inspiration would come on, if the patches were touched *in time* by the solid caustic. This embraced all the treatment necessary for the restoration to health of every case which could be seen in time. Dr. Seiss mentions, in a letter to me, that his success has been very satisfactory, not having lost more than four cases in 103, in which these remedies had a fair trial.

The only sequela was a partial paralysis, or, more properly, sense of numbness, of one or other arm, the neck, or lower extremities. In no case, reported to me, did this amount to hemiplegia or paraplegia, and relief was also obtained by the use of sulphate of zinc and quinia.

The ash-colored patches did not seem to me to be false membrane, but a mere exudation, attached, but not adhering, to the mucous surface, as moss is often found on rocks. When separated by the finger, (I succeeded, without difficulty, in two attempts,) after being loosened by the nitrate, the mucous coat underneath appeared paler, and, apparently, more free from disease than the parts not covered. Perhaps this exudation relieved the vessels to a certain extent, but certainly there was no sign of ulceration under the patches. It had a velvety feel to the touch, and a velvety appearance.

From my own limited experience, and that of one who has gone through the whole epidemic, I am convinced that, although this disease is rapid, fearful, and certainly fatal when badly managed, it may be as certainly arrested in its course, and a happy result attained, by a prompt and persistent use of the remedies I have already mentioned—

the suggestion of which is due to the skill, investigation, and study of our European brethren.

It may be well to observe that, in the very district over which this epidemic has traveled, typhoid fever has, for several winters, been the prevailing disease, approaching sometimes the character of an epidemic. There was, however, no case of the latter disease in the neighborhood during my visit, nor has there been one since.

It would be an interesting question, whether the depressing nature of typhoid fever could have given a type or character to the present epidemic, or whether the terrible debility, which constituted the prominent (constitutional) symptom, was influenced by its precursor.

A letter from Dr. Seiss (Jan. 18) informs me that the disease is still lurking in Adams County, but in a milder form, and yielding readily to the remedies proposed.

Poisoning by Phosphorus.

Reveil, of Paris, has lately read a paper on this subject before the Imperial Academy of Medicine, which contains interesting facts and startling statistics. In the interval from 1826 to 1845, the number of trials for poisoning, at the Court of Assizes, was 616, two-thirds of which were for poisoning by arsenious acid, and not a single case attributing death to poisoning by phosphorus. Of 544 cases of poisoning that occurred in England in 1837 and 1838, 186 were occasioned by arsenious acid, 193 by opium, and none by phosphorus. Since 1846, however, a large number of cases of poisoning by chemical matches have been tried at the French Criminal Court. In the trials, on charges of poisoning, from 1846 to 1852, arsenious acid holds first rank as the fatal agent, cupreous salts the second, and then phosphorus. Chevallier and Poirier report 88 cases of suicides and homicides that occurred up to 1858 through the agency of phosphorus products. Poisonings by arsenious acid are diminishing in number in France, but, in the same ratio, poisonings by phosphorus are increasing. In view of this fact, it is well to spread every information possible, on the subject of phosphorus-poisoning, before the profession.

Reveil discusses, in his report, the following subjects: The action of phosphorus on the animal economy, the best treatment of cases of phosphorus-poisoning, the proper process for its detection in fatal cases, and the dangers arising from the sale of phosphorus paste,

(used for the destruction of rats,) and from the manufacture of chemical matches made of ordinary phosphorus. Under the last head, he mentions that Chevallier and Tardieu had reported *against* the employment of ordinary phosphorus in the manufacture of matches, and recommended its substitution with red phosphorus. No measures have as yet been adopted in France on this subject, although the cases are not rare of death in children from eating phosphorus paste, or sucking the ends of matches; although instances of homicide have occurred where the paste from such matches had been mixed with soups or other articles of food; although suicides have frequently taken place, in the case of unfortunate mechanics or poor girls, by melting off the ends of matches, whose poisonous properties they had learned. In addition to these cases, the manufacture of such matches exercises a hurtful influence on the health of the workmen. Headache, worrying cough, sore throat, colic and stomachic pains, are troubles often observed in the manufactories. The physicians of Sarreguemines have noticed that the children employed become etiolated, and the workmen exhibit phosphorescence of the breath in the dark. But in addition, there is the destruction of the bones of the face—a phosphoric necrosis—a great number of observations regarding which have been recorded by Neumann, Strohl, Roussel, Sedillot, Broca, and other surgeons. This affection terminates often in death, or leaves the patient afflicted with incurable symptoms.

Besides these dangerous effects to life, such matches are frequently the cause of fire, from imprudence or design. The latter can be avoided by using the new safety matches, which are covered with chlorate of potassa, sulphide of antimony, and glue. To ignite these, friction must be used against a coating of red phosphorus, sulphide of antimony, and glue. These matches have as yet not been introduced into use in this country.

Red or amorphous phosphorus is an allotropic condition of ordinary phosphorus. This is obtained in small quantities whenever solar light is allowed to act on phosphorus in a vacuum, or in an atmosphere of nitrogen or hydrogen; but, by means of a heat of 170° C., kept up for 10 or 12 days, as proposed by Schrötter, the allotropic condition may be imparted to large quantities of ordinary phosphorus. Red phosphorus is in the form of a red powder, inodorous, setting free no irritating vapors, unaltered by exposure to the air, inflaming only at a temperature of 200° C., passing into the condition of ordinary phosphorus at 260° C., insoluble in ether and bisulphide of carbon,

not capable of combination with sulphur by fusion, and not poisonous.

This *last* property is *the most remarkable*, and it is well attested by Bussy, De Vry, Lassaigne, Reynal, Renault, Delafond, Orfila, Rigout, and Poggiale.

The following are the conclusions arrived at by Reveil in his examination of the whole subject:

1. Ordinary phosphorus inflames tissues with which it comes into contact, and may even burn and disorganize them. In such cases, the inflammation produced is sufficient to explain the death.

2. But, in order that death should occur, these accidents are not *indispensable* conditions. In a large number of experiments performed on animals, no trace of inflammation has been noticed. In such cases, we must admit that it has been absorbed, either in its condition as an elementary substance, or in one of its acid forms.

3. The acids of phosphorus are not poisonous. They, like the strong acids, only produce serious accidents when they are concentrated.

4. Phosphorus introduced in the stomach gives rise to accidents differing in effect according to the mode of administration: whether simply melted in water, dissolved in oils, or in the form of powder or cylinders.

5. In investigating cases of poisoning by phosphorus, it is important, above all things, to find out whether the suspected substances contain phosphorus in a free condition. If it cannot be isolated, an attempt should be made to produce the phenomena of phosphorescence by Mitscherlich's method. (This process consists in placing the suspected substance in a flask along with water and sulphuric acid. To the flask a tube, bent twice at right angles, is attached, which passes through a tube, like Liebig's condenser, that is kept full of cold water. The end of the tube communicates with a receiver. The flask is heated by a spirit-lamp, and, if phosphorus be present, there will be a phosphorescence produced in the part of the tube where the vapors condense.)

6. The amount of phosphoric acid, or the lower acids of phosphorus, when present, may at once be determined; but the expert can only pronounce on the presence of phosphorus when he has recognized the substance itself, or the phosphorescent vapors.

7. The number of cases of poisoning by chemical matches has increased so much, that ordinary phosphorus should be substituted by amorphous, non-poisonous phosphorus.—(*Journ. de Pharm., October, 1859.*)

Observations on Propylamine.

As some attention is being paid to this substance now, on account of its pretended curative powers, a few words on the subject of its discovery and preparation may not be out of place in our MONTHLY. It is a volatile base, homologous with ammonia, and was first obtained by Wertheim, in 1850. The substance is isomeric with trimethylamine—both having the same composition, C_6H_9N —and for our present purposes, they may be considered identical. Johnston, in his *Chemistry of Common Life*, mentions it as existing in the *Chenopodium olidum*, the stinking goose-foot. If this plant be distilled along with a solution of soda, the volatile alkali is given off. It is, however, most abundantly obtained from the brine of herrings which have been kept for a very long time, and is, in fact, the cause of the peculiarly penetrating and offensive odor which such brine gives off. It is likewise given off from the ergot of rye. Johnston suggests that the substance may, at some future time, be useful in the *cuisine*, “in the flavoring of imitation fish-cakes, crab, lobster, cray-fish, and oyster-pâtés, fish-sauces, such as the anchovy, &c., &c. Such preparations as these, by the application of a little skill, may pass off at table, and be made to please the palate as well as genuine salt-water productions, though containing nothing that ever lived in the sea!”—(*Op. Cit.*, ii., 279.) *Degustibus non est disputandum.*

From Gmelin's *Hand-Book of Chemistry*, vol. ix., we learn that it “is a perfectly clear, colorless liquid, having a strong, pungent, and somewhat ammoniacal odor; forming a thick white cloud when a rod, moistened with hydrochloric acid, is held near it; and that it is soluble in water, conferring alkaline properties on the solution.”

The easiest method of preparing it is by distilling herring brine along with potash; although it may be obtained by distilling the flowers of the *Cratægus oxyantha* with soda, or by distilling ergot with quicklime. The hydrochlorate is crystalline, deliquescent, and soluble in alcohol. The propylamine is obtained from a solution of this salt by the action of an alkali.

Dr. Awenarius, of St. Petersburg, first employed this volatile alkali in the treatment of cases of rheumatism, and treated, during two years, more than 250 cases of rheumatic affections successfully with it. He affirms that the pain and fever disappeared the day after its administration. His formula is:

R.—Propylamine, gtt. xx.
Aquæ distil., f. ℥vj.

Add, if necessary, essence of peppermint, with some sugar.

Dose.—A table-spoonful every two hours.

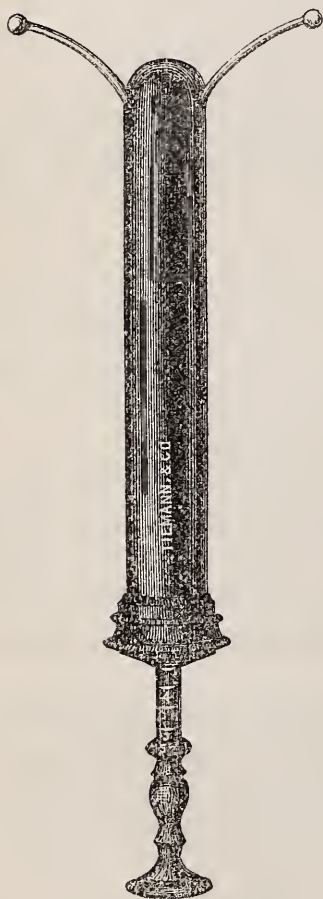
Every 10 grains of the hydrochlorate is stated by the chemists to contain 6 grains of the alkali. Propylamine is already offered to the profession by the importers, and we shall await its trial by the physicians of our country with some interest.

L. H. S.

Intra-Pelvimeter : A New Instrument for ascertaining the Diameters of the Pelvis. By GEORGE S. KING, M.D., Washington, D. C.

(Communicated in a letter to the Editor.)

MR. EDITOR—*Dear Sir:* In a lecture delivered a year ago at Bellevue Hospital by Dr. Geo. T. Elliot, the unsatisfactory character of pelvimeters then in use was animadverted upon, and the superiority



of the index-finger to those heretofore invented was set forth in such terms as to lead me to ponder on the prospect of supplying this recognized want. The instrument which forms the subject of this article was suggested to me a year ago, by necessity, in a case of suspected pelvic deformity, to which I have before alluded; and I am encouraged to present it to the profession, by the advice of several practitioners who have given it a thorough trial. I was puzzled to know why the end at which I aimed could not be attained by inverting the curves in the ordinary external pelvic calipers, and so controlling them in a journal-box that they might be projected and retracted by means of a piston-rod, attached to the inclosed ends with hinges. Pursuant with the thought, I went to Mr. Tiemann's, 63 Chatham Street, N. Y. City, and got him to insert a pair of steel prongs, with knobbed ends, into a vaginal syringe, attaching them as above, and to mark off the piston-rod

into half inches; and the idea was embodied. The distance between the knobs when the prongs are completely retracted is one

inch, and increases, as they are projected, up to five inches and a half, as indicated by the scale; that being the greatest internal diameter of the human pelvis that has come to my knowledge. The instrument may be readily worked with one hand, while one or more fingers of the other be used in adjusting the knobs to the points inside the pelvis, whose relative distance it is desired to ascertain. When this is accomplished, the thumb-nail of the hand holding it may be placed on the scale close up to the cap of the cylinder; the rod then first withdrawn, and afterwards the whole instrument; whereupon, by inspection, the precise diameter sought will be found to be registered on the scale. The piston-rod is supported within the cylinder by passing through a cork. Further description would be superfluous, as the whole idea may be clearly conveyed by a single cut representing the instrument with its rods projected, or, in default of this, by the simple comparison of an unhoused snail with opercula extended. So simple, indeed, did the idea seem to me, that I was content to believe that it had already fulfilled its greatest end in satisfying me of the normal size of my patient's pelvic cavity, till Professor Fordyce Barker, of your city, to whom I showed the instrument, assured me that it had never been extant, and kindly volunteered to present it before the New York Academy of Medicine; this he did in March, 1859. On the occasion, he stated that he had tested it over a hundred times, and had found it to answer the purpose for which it was designed, even to the exclusion of some slight objections which he had anticipated. This opinion has been corroborated in substance by Dr. Elliot, upon the same practical experiments, and by several members of the profession in different parts of the country, who have found use for it. From the limited number of cases for which a pelvimeter is in demand, it is plain that this is not the nature of the thing to bring "about a revolution in the profession;" yet such as it is, if it can be mediately instrumental in saving the life of one mother, or one child, it will thus indemnify your readers for so much space as its introduction may occupy in your journal, and justify me in obtruding it upon their attention. With this hope, I am, sir,

Your respectful and obedient servant,

GEORGE S. KING, M.D.

MONTHLY SUMMARY OF MEDICAL JOURNALISM.

By O. C. GIBBS, M.D., Frewsburg, N. Y.

Contagiousness of Typhoid Fever.—In the *American Journal of Medical Sciences* for October, Dr. Charles A. Lee, of Peekskill, N. Y., publishes an account of an epidemic of typhoid fever, that prevailed in Westchester County, during the Spring and Summer of 1859. Over fifty cases occurred in all, ten of which were under the immediate observation of Dr. Lee himself. Dr. Lee thinks the cases, so far as they go, present proof positive of the contagious nature of the fever. He says: "All the cases could be traced to one single source, a sporadic case." Again: "With the exception of the first case, all the others, it is believed, can be traced to contagion." * * "Of the physicians who watched its progress, none doubted its contagiousness, after the first few cases." Of the 14 who watched with the first case, 7 took the fever. Of cleanliness and ventilation, as preventive of contagion, he says: "Where great attention was paid to changing frequently the bed and body linen, cleansing the patient's body and limbs daily, and free ventilation, no other member of the family, nor any who watched with the sick, (with one exception,) were subsequently attacked; but where these were neglected, nearly every inmate was seized, and about half who stayed for any length of time in the sick-room." Dr. Lee thinks the interval between the successive cases is from three to four weeks. We consider this paper one of decided interest, as it contains facts, registered by a close observer, bearing upon an unsettled question.

There is one other point in this paper to which we wish to call attention. He says: "*Somnolence* is usually benefited by opiates," and *delirium*, in his opinion, does not contra-indicate their use. "Opiates did not seem, in my own practice, to increase the cerebral disturbance. For the most part, they had a contrary effect."

Our readers will remember that, on one or two occasions, we have advocated the opium treatment in this fever, in former numbers of our Summary.

Arsenic in Menorrhagia.—In the same No. of the *American Journal of Medical Sciences*, above referred to, Dr. A. P. Burns has an article upon the use of arsenic in a variety of uterine affections. His claims for it are rather too immoderate to inspire largely our confidence. He says: "My usual plan of treatment has been, in menorrhagia, if called to the case during the hæmorrhage, to give immediately ten to twenty drops of Fowler's solution, according to the severity of the case, and

repeat it in doses of ten drops every fifteen to twenty minutes, until the hæmorrhage is checked." * * * "In leucorrhœa, I give three to five drops of Fowler's solution, three times a day, and steadily persevere in the use of it until a cure is effected." * * * "In either affection, if there is debility, I use tinc. cinchona comp., ℥ij; tinct. cantharsis, ℥ij. M.—Dose, a tea-spoonful three times a day; sometimes add spirits æther, nit. and tinc. opii. camph." * * * "I know of no remedy so effective and so prompt in arresting hæmorrhage in threatened abortion; it seems to suspend at once the contractions, as well as the hæmorrhage. I usually give twenty drops for the first dose, and ten drops every fifteen to twenty minutes thereafter, until the hæmorrhage is checked. In hæmorrhage after delivery, it is equally efficacious, used in the same manner and doses." How an article, that "suspends at once all uterine contractions," can prove of decided efficacy in controlling hæmorrhage after delivery, where firm uterine contractions are necessary to success, is just beyond our comprehension.

Alcoholic Liquors in Tubercular Diseases.—In the same number of the above-named journal, Dr. John Bell, of New York, has an able essay upon the effects of the use of alcoholic liquors in tubercular disease, or in constitutions predisposed to such disease. This essay secured to its author the Fiske Fund prize of two hundred dollars. The essay displays considerable research, upon a subject of very great interest. We have space only for the conclusions.

1. "The opinion so largely prevailing as to the effects of the use of alcoholic liquors, viz., that they have a marked influence in preventing the deposition of tubercle, is destitute of any solid foundation.

2. On the contrary, their use appears rather to predispose to tubercular deposition.

3. Where tubercle already exists, alcohol has no obvious effect in modifying the usual course run by that substance.

4. Neither does it mitigate, in any considerable degree, the morbid effects of tubercle upon the system, in any stage of the disease."

There are but few subjects more difficult to investigate statistically, than the one under consideration. The author has, perhaps, done as well as was possible with the materials at command, but really the conclusion is, with us, quite unsatisfactory. Not because we are particularly partial to its use, as a preventive or curative agent, but because we consider the statistics, the basis of the argument, more likely to lead to error than to truth.

In the essay before us, persons "who often pass several days in suc-

cession without the use" of alcoholic liquors, are "classed among the temperate, even if they occasionally use them to excess." Persons who drink alcoholic liquors daily and freely, if they are not known as drunkards or intemperate men, are classed also among the temperate. Supposing that a hundred persons, who are 'irregular in their habits, who get intoxicated daily, who are badly fed, badly clothed, and badly lodged, in filthy apartments, should give a greater per cent. of consumptives than another hundred who have not the infamous reputation of being drunkards, and yet, for aught that is stated, may be regular drinkers of good liquors, in such moderation as is compatible with ebriety, what are such statistics worth in investigation of the question of alcohol as a remedy in, or a preventive of, phthisis? We answer, most emphatically, nothing; and yet this is a tolerably fair representation of the argument of the paper. There is certainly a difference between the judicious medicinal use of alcohol, and the beastly use of it by the notorious inebriate; and, with the latter class, there may be other causes operating to produce a greater per cent. of phthisis.

To make a statistical argument worth anything, a comparison should be made between persons in the same locality, having thus the same climatic relations, engaged in similar pursuits, and possessed alike with the comforts of life; one portion abstaining entirely from the use of alcoholic liquors, and the other indulging with rational moderation. There are no statistics extant for such a comparison; hence, we regard the question still open for observation and study.

Removal of Floating Cartilages from the Knee-Joint.—In the *Lancet and Observer* for December, Prof. E. S. Cooper, of San Francisco, has an article upon the above subject, in which a bold plan of treatment is advocated. He says: "My plan of operation for the removal of floating cartilages from the knee-joint is to cut directly down upon the cartilage by a free incision, and remove it at once, when a piece of lint, wet with an evaporating lotion, is laid into the wound, after which a roller is placed as tightly upon the limb as the patient can conveniently bear, commencing at the foot, and continuing above the knee. The limb is kept entirely quiet and cool by the frequent wetting. The patient partakes freely of the spirits of mindereri and opium, if there be pain. A splint is applied to the back of the joint to prevent flexion." After the fifth day, the lint is removed and a poultice applied. He concludes with the following: "How irrational to suppose that the admission of atmosphere into a joint is the cause of the destructive changes which so frequently take place after slight wounds of the knee-joint! I repeat, the cause of these symptoms is a

burrowing of matter, and not the admission of air into the joint; and I court criticism upon the statement."

Our readers will remember Prof. Cooper's treatment of ununited fracture, referred to in the September number of our *Summary*, in which the same views, in regard to free incisions into large joints, were stated.

Punctures in Dropsy.—In the *Boston Medical and Surgical Journal* for December 1st, Dr. E. J. Coxe, of New Orleans, reports a few cases of dropsy, of various localities and causes, cured by simple punctures. He says: "During the past two years, in the wards of the Charity Hospital under my charge, several cases of anasarca and ascites, of different degrees of severity, and resulting from different diseases, have presented themselves, in all of which, by means of a few punctures, all of the fluid has been discharged, gradually, but continuously, without in one instance the occurrence of any unpleasant symptom, and to the clearly felt and expressed comfort of the patient."

Sunken Nipples.—In the *Medical Press* for December 3d, in a lecture upon the "Management of the Puerperal Woman and her Infant, during the Month," Professor Bedford has the following practical remarks: "It will sometimes happen that the nipple is quite sunken and flat, so much so that it will be impossible for the child to grasp it in its mouth. The consequence will be, that the mother is fretted and fatigued by the negative efforts of the infant; and this latter will be defrauded of what it has a birthright claim to—its natural nourishment. It is the easiest thing imaginable to remedy the difficulty. Take an ordinary pint bottle with a long neck, fill it with hot water, then pour out the water, and apply the mouth of the bottle immediately over the nipple; as the bottle cools a vacuum is formed, and thus a powerful but equable suction is produced, which results in elongating the nipple. The bottle is then removed, and the child applied."

Removal of the Neck of the Uterus with the Écraseur.—Before the Buffalo Medical Association, as per published proceedings in the *New York Monthly Review*, &c., for October, "Dr. White presented a specimen of cauliflower excrescence attached to the lower segment of the uterus; being one of those spoken of at the last meeting as having been removed by the *écraseur*. It had formerly been the practice of some surgeons to remove these with the knife, but the operation had latterly been abandoned, on account of the danger of hæmorrhage. Of the two cases he had during the last year, where he had

removed the neck and lower part of the uterus by the *écraseur*, both had completely recovered." * * *

"Some writers, in speaking of this instrument, had recommended tightening the chain and then resting occasionally; but Dr. White did not think this necessary; he had not consumed more than five minutes after the chain was on the uterus before its removal, and had not in either case lost more than one or two ounces of blood." * * *
"Dr. White also reported a case of removal that afternoon (October 14th) of a large fibrous tumor from the uterus, and presented the fresh specimen for the examination of members. In this case he had substituted a wire rope for the common chain in the *écraseur*, and liked the substitute, as he was enabled by it to introduce the instrument well up in the vagina. The patient was thirty years of age, and of a very pale, bloodless complexion; has lost a large amount of blood at different times."

Destruction of the Nerve of a Tooth with Arsenic.—In the *Peninsular and Independent* for December, there is an article upon this subject, copied from the *American Journal of Dental Science*. As the last-named journal does not come to our table, we copy from the former the following, in regard to the manner of using the arsenic:

"The manner in which we have it prepared for use is, to mix gr. 1 of arsenious acid with the same quantity of sulph. morphiæ. The two are thoroughly incorporated, and then divided into thirty parts. Each of these powders is put into a paper by itself. In applying it to a tooth, a small dossil of raw cotton is moistened in creosote, and then placed on the arsenical powder, which it readily absorbs. This done, the cotton is placed carefully over the exposed pulp, and the cavity securely filled with softened wax. It is permitted to remain in the tooth from seven to ten hours; it is then removed, and the pulp completely extirpated to the extremity of the root."

Extirpation of the Parotid Gland.—In the *Chicago Medical Journal* for December, Professor Daniel Brainard, M.D., has an article upon the extirpation of the parotid gland and other glandular tumors, with a report of five cases of successful operation. He says: "The possibility of removing the whole of the parotid gland by operation is hardly called in question by intelligent surgeons. Indeed, it is, at the present time, difficult to understand how it should have ever given rise to the discussions which have been witnessed on the subject." Prof. Brainard says it would not be difficult to collect fifty undoubted cases of removal of the parotid gland, posterior to the record of Béclard, about one-half of which operations have been performed in this coun-

try. Of doubtful cases he says: "For myself, I should look with suspicion upon all cases where the external carotid artery is not divided, and those where the face is not paralyzed." In this particular he agrees with Velpeau and Bécлар: they, however, consider great hæmorrhage a necessary condition present in all operations for the undoubted removal of this gland. Differing upon this point, Prof. Brainard says: "I am sure that when the gland is attacked from below, as in McClelland's cases; this artery (the carotid) is often torn across, and does not bleed." In Prof. Brainard's first case, the external carotid was torn across, and did not bleed.

Pneumonia.—In the *Chicago Medical Journal* for December, Dr. Heavenridge has a lengthy paper on pneumonia. We quote one passage in regard to treatment. "In uncomplicated cases of pneumonia, little else will be found necessary than to premise a full bleeding. Should the patient be plethoric, clear the bowels with an active cathartic, and then administer quinine and opium in such quantities as to insure their quieting and sudorific effects; controlling, at the same time, the arterial circulation by means of veratrum viride or digitalis. Should the inflammation be found obstinate in yielding, a blister will be useful in the latter part of the treatment."

The quinine and opium treatment of pneumonia seems to be gradually growing in favor. This treatment, with some variations, we have advocated for some time past, as is well known to our readers. For five years we have not found it necessary even to "premise a full bleeding." We have frequently seen a skin become moist and cough loose, that had resisted bloodletting and antimony, very soon after changing the treatment to quinine and Dover's powders; and seen a pulse come down from 140 to 90 per minute, under the same change. For report of cases, we beg leave to refer to a former paper of ours, in the *Lancet and Observer* for October, 1858, and the *Buffalo Medical Journal* for November of the same year.

White Paint in Severe Burns.—In the same number of the *Chicago Medical Journal* just referred to, is a report of a case of severe burn, successfully treated with white paint, that occurred in our practice about two years since. The patient was a girl aged about eleven years, and was burned from her clothes taking fire while she was alone. "The whole back, from the hips to the shoulders, a surface thirteen inches wide and fifteen long, was completely charred. The back of both arms, from the elbows to the shoulders, was also burned in the same manner."

We did not attend the case until after the fifth day. Taking

charge of the case, we "removed the dressings, and, on cutting through the charred flesh, we found the texture destroyed to the depth of at least half an inch. White paint was applied over the whole extent of the burned surface, and quinine and opium, with brandy, was administered internally." The bed was covered with oil silk, and the suppurative discharge became fully established on the ninth day. The discharges were extremely profuse, exhausting, and long continued. The lead dressing was covered mainly throughout, with some little variation occasionally in the form of application. Dry tannin was also sprinkled upon the surfaces occasionally. Recovery was not complete until after about fourteen months.

Judging from this case, we should think the danger of lead-poisoning from absorption had been overrated.

In that report, we made one practical remark that we consider important, and shall take the liberty to quote it here. "The friends were directed not to wash the sore at all. Through the repeated importunities of neighbors, an attempt was made to use soap and water, in cleansing the sore, at one time in our absence, perhaps about three months after the receipt of the injury. The pain it occasioned was extreme, and the sores inflamed considerably, and did not recover their former state for several days. Strange as it may seem, healthy pus is the best possible protection to healthy granulations, and the best security against their unhealthiness. When new dressings were applied, the sores were quickly and very gently wiped with dry lint only."

An explanation in regard to this case is required. We here say that fourteen months were required to effect a cure, and in the paper referred to it is stated that the sores were healed at the end of the tenth month. The above referred to report was written last March, at which time we supposed the cure was complete. We were, however, subsequently called to the case, and a cure was not effected until four months later.

Removal of Bleeding Tumor with Ecraseur.—In the *Nashville Journal of Medicine and Surgery* for December, Professor Paul F. Eve reports the removal of a bleeding tumor from the lip of an infant. The tumor was removed with the *écraseur*, without hæmorrhage. The tumor was four inches in circumference, and was removed in three minutes, leaving a smooth surface. Prof. Eve says: "Altogether, the method of operating was very satisfactory, and I am confident that by none other could the tumor have been removed with such ease and safety."

We had looked upon the *écraseur* as an unscientific novelty in surgery, that was soon destined to neglect and oblivion; but when such surgeons as Paul F. Eve, M.D., speak of it as above, we feel compelled to reconsider our judgment.

Influence of Quinine and Malaria over Pregnancy.—The idea has been several times advanced, during the last year or two, that quinine had a tendency to produce abortion, when administered to the pregnant female. To this idea we have never given our assent; believing that the diseases or conditions, to remedy which quinine was administered, was doubtless the cause of abortion, when it occurs under such circumstances. In the *Nashville Journal of Medicine and Surgery* for December, Dr. Davidson, of Arkansas, reports a case of threatened abortion, caused by malaria, and successfully treated with quinine. Dr. Davidson says: "Knowing the patient to have been the subject of intermittent fever the summer and fall previous, it occurred to me that perhaps malaria was the cause of the uterine disorder. I therefore administered between fifteen and twenty grains of quinine the next day. She had no return of pains for about three weeks, at the end of which time they came on again. I stopped them with laudanum, but they returned daily, until I gave quinine." * * "I several times withheld the quinine for a day or two, when the pains would invariably return; but when it was administered regularly it never failed to keep them in check." The above case, so far as it goes, negatives the idea that quinine develops uterine contractions.

Hæmaturia.—In the *New Orleans Medical News and Hospital Gazette* for November, the editor makes reference to a form of hæmaturia, supposed to be of miasmatic origin. This calls forth the report of a case, in the Dec. issue of that journal, by Dr. Wm. E. Brickell, of Vicksburg. In the case reported, the patient had four attacks of profuse hæmaturia. In the first, he was successfully treated with quinine, opium, and camphor. In the second attack, Dr. Brickell says, "he lost a vast amount of blood; I saw nearly a quart that had passed just before I reached the house." Under the use of quinine and brandy, he again gradually recovered. Several weeks later, he had a third attack, and "came near dying." Again he recovered on the brandy and opium. A month later, he had a fourth attack, and being opposed to quinine, died without treatment. Dr. Brickell says: "I had never seen or heard of such a case, yet I was satisfied that the hæmaturia was but an effect of the chill, and my reasons for so thinking were as follows: There was no fever—the pulse was as fre-

quent as one hundred and fifty, but *small and utterly without force*; no pain in the lumbar region, or in the bladder or urethra; he had received no mechanical injury to account for the hæmorrhage, and it always occurred at the time the chill came on, and ceased as it went off."

Ovariectomy.—In the *Boston Medical and Surgical Journal* for December 15th, Dr. P. Simonton, of Searsport, Me., reports a case of ovariectomy, eventuating in perfect recovery of the patient. The patient was 35 years old, and unmarried. The operation was performed on 17th October, by Dr. McRuer, and the ligature came away on the 43d day. "The tumor was multilocular in structure, the cells varying in the capacity of holding from one to five or six fluid ounces; the tumor weighing, solids and liquids, 25 lbs." This is the second successful operation of ovariectomy that has been reported during the month of December—each was performed in a country town, one in Ohio, and the other in Maine. It is hard for European city surgeons, of world-wide reputation, to believe that country physicians are surpassing them in successful results after this operation, but such is the fact. He who will carefully examine the history of the healing art will be surprised to see how much of progress, not only in surgery, but practical medicine, has originated with country practitioners.

In-growing Nail.—In former numbers of our *Summary*, we have given two methods for curing this somewhat troublesome affliction. In the *Boston Medical and Surgical Journal* for December 15th, the editor has the following for cases of moderate severity: "A piece of soft felt, such as is used by piano-forte makers, about half an inch thick, is cut into a wedge shape, and inserted between the great-toe and the second, the point forward. The size of the wedge must be regulated by the circumstances of the case, the object being to separate the toes, so as to remove the pressure of the second toe against the internal angle of the great toe-nail, care being taken that the toes are not pushed too far apart. The nail should be allowed to grow to the end of the toe, and the internal corner must not be pared away, as is often done."

The Effects of Vaccination after Natural Variolous Inoculation.—In the *Semi-Monthly Medical News* for December 1st, Dr. H. L. Givens has an interesting report upon the effects of vaccine virus, when introduced into the systems of persons exposed to natural variola. The subject is an interesting one, and, in its handling, several cases are reported, in which persons have been vaccinated, even several days after exposure to small-pox, and with the effect of an entire pre-

vention of that loathsome disease. Dr. Givens says: "Hence we may infer that, in the use of the vaccine virus, we have a sure and certain prophylactic in arresting and mitigating the virulence of this loathsome disease, even days after exposure." Upon this point he quotes Prof. Rogers, of Louisville: "In a number of instances, how many he cannot say, in both children and adults, he has introduced the vaccine virus after exposure to the poison of variola, with the effect, in a large proportion of cases, of complete protection. In all of the cases, vaccination was promptly resorted to within one to two days after exposure."

Dr. McDowell, in the *American Journal of Medical Sciences* for October, 1857, in an article upon this subject, says: "Vaccination will check small-pox, even after exposure to contagion, provided the virus has time to enter into the system."

In the winter of 1849 and '50, we were called to see a young man, upon whom a genuine variolous eruption was just making its appearance. There were six other members in the family, varying from two to forty years of age, all of whom had been vaccinated except the two youngest, whose ages were respectively two and four years. From our report of this case, made nearly three years later, and published in the *American Journal Medical Sciences*, for October, 1852, we quote the following: "On the following day I vaccinated those who had not previously been, with vaccine matter which was several years old. The vaccine disease was produced in the oldest of the two, but not in the younger. On the third day from the first vaccination, I revaccinated the younger, and the vaccine disease failing to appear, on the third day after the last vaccination, I performed variolous inoculation; but, fortunately, on the following day, the vaccine disease was manifested through the first vaccination, and it run its regular course, *rendering the variolous inoculation abortive*." The child escaped all evidences of small-pox, though there was but one room in the house, and that confined and filthy, to which the child was confined from the first. In this case, the child had been with the sick man from the first manifestation of the disease, and not the least evidence that the vaccination had taken effect was discoverable until the *eighth* day after the manifestation of the eruption in the young man, and yet *the vaccination proved perfectly protective*.

Palatable Medicines.—In the *Semi-Monthly Medical News* for Dec. 1st, Dr. T. E. Jenkins has an article upon the above subject, from which we make an extract or two.

"The operation of sugar-coating pills is very simple, and may be

practiced by any one. It is done thus: After the pills are finished, they should be rolled between the fingers, previously moistened with thick mucilage of gum-arabic, and while still wet, thrown together in a capsule or saucer containing a sufficiency of very finely-powdered sugar, and rotated therewith until the surface is completely covered, after which they may be exposed to a gentle heat to dry them. If necessary, this process may be repeated in order to give a thicker coating." * * * "Powders may be mixed with aromatized sugar, in order to disguise their nauseous qualities, and every practitioner should be provided with a few bottles of sugar aromatized with orange, lemon, peppermint, or other agreeable volatile oil, so as to have always at hand the means of rendering less disagreeable the chartulæ for his little patients." * * * "A very elegant *bonbon* may be made by incorporating powdered drugs, or even medicinal extracts, with pulverized aromatized sugar and white of egg, in the manner in which confectioners make their 'icing' for cakes, and dropping on a tile from the truncated end of a paper cone portions of the mixture suitable for a dose, they soon dry when exposed to the air, and will be eagerly sought after by children."

Menstruation without Ovaries.—Before the Philadelphia County Medical Society, Dr. W. L. Atlee read a very interesting paper upon the "Diagnosis of Ovarian Tumors." We invite attention to a remark of peculiar interest. We quote from Dr. Atkinson's report in the *Medical and Surgical Reporter* for December 17th:

"The presence or absence of the catamenia is of little account; for even when both ovaries have been diseased, the menstruation has gone on with great regularity. He mentioned a case in which he had removed both ovaries, and yet the menses recur regularly. He also illustrated this point, by relating the case of a young lady from whom he had removed both ovaries; and some time after she informed him that, at the usual period, she experienced a sensation as though her catamenia were about to recur, connected with a whitish discharge from the vagina."

If it be a fact that women can menstruate regularly after both ovaries have been removed, then our notion of the ovarian function, and of the source of the catamenial secretion, must be somewhat modified. Prof. J. W. Draper's "Physiology" lies before us, from which we quote, (p. 520.) "So long as these periods continue, the individual possesses the reproductive power."

Can a woman conceive without ovaries? If Dr. Atlee's observation is correct, the language of Dr. Draper, above quoted, needs modification.

Diagnosis of Ovarian Tumors.—In the above-mentioned paper of Dr. Atlee, as given in the *Reporter*, the author says: "One of the most important means of diagnosis (of ovarian tumors) is tapping; it gives us undoubted information of the absence or presence of ovarian disease, adhesion, and the character of the tumors. It should not be performed at an early period of the disease, except in reference to the propriety of ovariectomy, or to relieve urgent symptoms. On the other hand, however, the operation of ovariectomy should never be attempted without previously having employed this means of diagnosis. The only two operations performed in Philadelphia, where no tumor was found to be present, were neither of them diagnosticated by this *indispensable* means."

A New Suture.—In the same number of the *Medical and Surgical Reporter* just referred to, Dr. W. L. Atlee describes a new suture. "It consists of the common 'blue needle,' and a gum-elastic ring, which is passed over the ends of the needle after it has been passed through the edges of the wound. The great advantage to be derived from it is, that it yields to the swelling of the part, and as the tumefaction subsides, again draws the wound together, always keeping the edges in apposition." * * * "These rings are readily procured, by making smooth sections from tubes of gum-elastic, of the required size."

Treatment of Dropsies.—In the *Medical Press* for December 17th, Dr. William W. Gregory, of Virginia, has an article of considerable length upon the pathology and treatment of dropsical diseases, in which he professes to differ from the profession in general upon the pathology of such diseases, and claims for his treatment novelty, originality, and unprecedented success. He advocates his views with great earnestness, and gives illustrative cases in proof of remarkable success. He makes one remark, he says, without fear of cavil, that to us seems a little extravagant: it is, that in a patient once cured by his treatment, "*the disease never afterwards occurs.*" (The italics are his.) Can he give us some plan of treating fractured bones that will insure against any possibility of their being broken again!

He assumes "DEBILITY to be the starting-point of dropsy," and vegetable acids he thinks the most efficient curative agents. Vinegar is the acid he selects, and the remedy he extols. As remarkable success is claimed and criticism courted, we shall quote the treatment, omitting the criticism. "The treatment I recommend commences with the production of slight ptyalism, or, rather, of *incipient* ptyalism. After which I proceed at once to the use of the vinegar and carb. of iron,

in the proportion of two drachms to the quart, and giving daily one wine-glassful morning, noon, and night." * * * "I also direct the patient to eat, every day, large portions of fried onions or garlic, and to chew the bulb of the squill in large portions. What is remarkable with the last-mentioned remedy is, that it does not nauseate, when given in these immense quantities; but, on the contrary, becomes grateful to the patient; and the vinegar, or vinegar and water, he will prefer to any other drink. Water I do not allow to be used alone, but always together with vinegar. I recommend the use of any nutritious food whatever, with which I usually order black or red pepper in large quantities." * * * "Of course it is necessary to keep up a regular action on the bowels; and this is best accomplished by the cream of tartar and jalap, and will be exemplified in the cases."

On turning to the cases, we find equal parts of jalap and cream of tartar given daily in dessert-spoonful doses. We have here for treatment, calomel to ptyalism, jalap and cream of tartar in full doses, squills in very large doses, fried onions, garlic, iron, and vinegar, administered to all cases, and yet the remarkable success is ascribed to the vinegar! We give the plan of treatment as probably possessing considerable merit, but we trust the author will not blame the reader if he thinks, with us, that the vinegar is probably the least important of the long list of remedies. Justice will not be done to the author without reference to one more peculiarity of his treatment. He says:

"I always resort to the operation of tapping, as soon as the presence of water is perceptible, no matter how small the quantity. When this is made use of early in the disease, there is a chance that the parts may recover their tone, &c."

Abdominal Tumors mistaken for Ovarian.—In the *Semi-Monthly Medical News* for December 15th, Dr. W. L. Sutton reports an interesting case of abdominal tumors that was mistaken for ovarian disease by several physicians. At first two distinct tumors were felt, and they continued to enlarge for fifteen years, when the patient died. An autopsy was had. The liver was found "enormously enlarged, extending to the pelvis. For some little distance below the edge of the cartilage it was of a proper color. The gall-bladder was large, and distended with healthy-looking bile. But the lower portion of the liver was dark and colored, thickened, and having several spherical elevations of different sizes, one of which, in size of a section of one-third of an orange, was situated in the line below the right iliac region and the hypogastrix, and was very evident before death." * *

“Upon lifting the bowels, a fleshy tumor appeared, of some five inches in diameter and ten long, running upward and towards the left side. It was more or less intimately connected by adhesions to everything with which it came in contact—the duodenum and ileum, the colon, mesentery and vena cava; these being separated in places by the knife, in places by tearing, the tumor was found to arise from, or be connected with, the left end of the pancreas.”

Will Belladonna Arrest the Secretion of Milk?—This question has been under discussion, before the College of Physicians and Surgeons of Louisville, for some time past. According to the report of proceedings in the *Semi-Monthly Medical News*, we see the profession of Louisville is about equally divided upon the subject. The members had nearly all used it to arrest the secretion of milk and prevent mammary abscesses; some with decided benefit, and others with no perceptible influence.

We think there are two reasons for this opposite result. Belladonna is not always a reliable article—as found in the shops, it is occasionally nearly or quite inert. It is more than probable, however, that failure is often owing to its being put on trial at an improper time, and thus expecting it to work a miracle or perform an impossibility. Under such circumstances, disappointment is certain. Belladonna has often been used, as has tinc. iodine, after pus has already commenced forming, with the vague hope that, in some unexplainable way, perfect resolution would soon be accomplished. Now, such a hope always meets with disappointment. The way to test the powers of belladonna is to apply it to one breast, commencing immediately after labor, where, for any reason, it is desirable to prevent or arrest the secretion of milk. In such cases, if the article of medicine is good, and its use is judiciously made and properly persisted in, we are confident no mammary abscess will follow. Within a very few weeks, we have attended one case of abortion at three months, one at five, and a case of delivery at full term, where the child was born dead: in the three cases, belladonna was applied to both breasts, and there was no secretion of milk evident at any time in either case. Would such have probably been the result without its use? Where, from any reason, nursing cannot be performed, and the secretion of milk is to be apprehended, we say employ the belladonna early, and mammary abscess, we believe, will be of rare occurrence. He who waits until suppuration is imminent or already commenced, will be disappointed in the expectation of good results, and will doubtless complain of the inertness of belladonna.

Treatment of Epilepsy.—In the *Cleveland Medical Gazette* for December, Dr. W. F. Harvey, of Springtown, Ind., reports his method of treating epilepsy, and claims for it, perhaps, rather more than ordinary success. We have space only for his special directions, omitting his remarks upon the *rationale* of the same:

R.—“ Ferri Ferrocyanureti, 1 drachm.
 Pulv. aloes soc., 1 “
 Sapon. duri, 1 sc.
 Pulv. glycyrrh. glab., q. s. to make an adherent mass.

M.—Ft. pillulæ, No. 60.

S.—Two pills to be taken morning and evening, and one at noon, unless too active purging takes place. Continue the pills regularly, day after day, in as large doses as can be taken without too active purgation. Examine the spinal column throughout its whole length, on each side of the spinous process, by pretty hard pressure. If a tender spot be found anywhere, apply oil of croton tiglii, in quantity sufficient to excite pustular eruption over a space large enough to completely cover the tender part. As soon as one crop of pustules begins to heal, apply the oil on a fresh surface adjoining, and so continue for some months, or at least sufficiently long to remove the tenderness. If no sore spot be found, apply the oil on a spot of the size of a silver half-dollar, over the upper dorsal vertebra, and continue the application as above. Bathe regularly twice a week, each time morning and evening, as follows: At night on going to bed, in *warm* water, strongly (almost to saturation) impregnated with salt. In the morning following, in cool water, impregnated, as before, with salt. Let the water evaporate from the surface, leaving the salt *precipitated*.”

No treatment can be alike adapted to all cases. It is probable that, in this very obstinate disease, physicians have been too ready to seize upon out-of-the-way and empirical treatment, to the neglect of more rational means. In our opinion, time and experience will determine the following to be the most successful treatment known, in cases of epilepsy of spinal origin: The bowels should be kept regular by the daily administration of a combination of aloes, rhubarb, and asafœtida; the nervous centres should be invigorated, and their integrity of action promoted, by the administration of quinine and strychnine, in average doses, continued for a considerable time. Dry cupping and counter-irritation along the spine, more particularly its upper portion, also to be persevered in. Any bilious derangement that may exist may be corrected with blue pill, and iron may be added to the treatment when indicated. It is probable that the phosphate would be found the most serviceable; in fact, we are not certain but some form of phosphorus

should form a part of the daily treatment. Where the paroxysms are preceded by premonitory symptoms, the inhalation of chloroform or ether, in moderation, continued for a time, will be found of use in warding off the paroxysm.

We are confident that this plan of treatment will stand the test of experience; and when it fails of good results, after a thorough trial, it is probable that nitrate of silver and zinc, and ferrocyanuret of iron, &c., will fail also.

Silver Ligatures.—In the *Medical Press* for December 24th, Dr. Sayre has the following in regard to the use of the silver wire as a ligature: "I am not certain, gentlemen, but that silver, as a ligature, in place of silk, is destined to become universal, and that hereafter, in our amputations, the vessels will be strangled by the silver, and then clipped close, the flaps brought in contact with the suture, and left to unite by first intention, without any silken setons hanging about the lip to create suppuration, engendering constitutional disturbance, and thereby endangering the life of the patient by secondary hæmorrhage."

Our friend, Dr. Elsworth, of this county, informed us, three years ago, that he had repeatedly ligated arteries with the common silk ligature, cut close, closed the wound, which had healed by first intention, without ever seeing any disturbance result from the retained ligature. Has any one of our many readers similar experience upon this point?

Glycerine Ointment for the Itch.—We copy from the *London Lancet* for December the following formula for the cure of that non-aristocratic disease, the itch. The formula is a favorite prescription of M. Bourguignon, of Paris. "Yolks of two eggs; essence of lavender, lemon, and mint, of each seventy-five drops; essence of cloves and cinnamon, of each 120 drops; gum tragacanth, half a drachm; well-pounded sulphur, twenty-six drachms; glycerine, thirty-two drachms. Total weight, nearly eleven ounces. Mix the essences with the yolks of eggs, add the gum tragacanth, make a good mucilage, and then add very gradually the glycerine and sulphur." One general friction of this ointment is sufficient.

"Many cures have been obtained by this preparation, which has the advantage of giving no pain." * * * "It does not grease the clothes, and has an agreeable perfume."

Treatment of Gonorrhœa.—Lectures on venereal diseases, by F. J. Bumstead, M.D., Surgeon to St. Luke's Hospital, are being published in the *New York Journal of Medicine*. The first two lectures were published before our *Summary* was commenced, and, consequently, did not fall under our observation. We shall endeavor to give our read-

ers the more important practical observations of these very interesting and comprehensive lectures.

In reference to the abortive treatment of *gonorrhœa*, in the male adult, he gives his preference to the weak, rather than the strong, solution of nitrate of silver. "The formula for the strong injection should not contain less than 10 grains of the nitrate of silver to the ounce of distilled water, and more than fifteen grains are objectionable." Of this, "only one injection will be required." The weak solution, which he prefers, should contain from one to one and a half grains to six ounces of water, and this should be repeated at short intervals, and continued until the discharges "become thin and watery" and slightly tinged with blood. Of this abortive treatment, Dr. Bumstead says: "I recommend it only in the first stage of the disease, and not after acute inflammatory symptoms have set in, or the patient suffers from scalding in passing water."

Where the abortive treatment is not appropriate, he commences treatment with a brisk cathartic, and, if the penis is much swollen, or there is much scalding in passing water, the following is advised:

R.—"Potassæ bicarbonatis, ʒij.
Tincturæ hyoscyami, ʒj.
Mucilaginis acaciæ, ʒv.

A table-spoonful every three hours."

If a syringe can be inserted without much pain to the patient, the following injection is advised:

R.—"Extracti opii, ʒj.
Glycerine, ʒj.
Aquæ puræ, ʒiij.

M.—Injection to be used after every passage of urine."

If the case is subacute, from half to one grain of sulphate of zinc to the ounce of the mixture may be added. As a local means, for the relief of uneasiness, local pain, scalding in micturition, Dr. Bumstead fully endorses Dr. Milton's statements in regard to hot water. "Water, as hot as can be borne, is the most grateful local application that can be used."

In the third stage of *gonorrhœa*, Dr. Bumstead speaks very highly of injections. He says: "In spite of all that has been written and said against them, I do not hesitate to say, that the surgeon who voluntarily renounces injections, deprives himself of his best weapon in contending with *gonorrhœa*, and is comparatively impotent in his attempts to conquer it."

Of the kind of injections, he says: "If no other ingredients for injections, except sulphate of zinc and nitrate of silver, were known, I

believe that the therapeutics of gonorrhœa would be the gainer rather than the loser." "My own preferences for an astringent as the active principle of injections in the third stage of gonorrhœa are very strongly in favor of the sulphate of zinc." * * * "In most cases, we need not, at any period, exceed the proportion of the sulphate in the following formula:

R.—Zinci sulphatis, gr. xij.
Aquæ puræ, ℥iv. M."

In connection with the use of the above-mentioned injections, Dr. Bumstead advises the administration of copaiba and cubebs, separately or combined. For the administration of copaiba, the following formula is recommended:

R.—"Copaibæ,
Spiriti ætheris nitrici, ää., ℥j.
Liquoris potassæ, ℥ij.
Spiriti lavandulæ comp., ℥ij.
Syrupi acaciæ, ℥vj. M.

From a tea-spoonful to a table-spoonful after each meal."

Cubebs may be administered alone or combined with iron or quinine, if the case demands a tonic. It may be combined with copaiba, and administered in pill. "The following prescription is particularly adapted to delicate stomachs:

R.—Copaibæ, ℥ij.
Magnesiæ, ℥j.
Olei menthæ piperitæ, gtt. xx.
Pulveris cubebæ,
Bismuthi subnitratæ, ää., ℥ij. M.

To be divided into pills of five grains each, and coated with sugar."

From 4 to 8 are to be administered three times a day.

For the relief of the chordee, lupulin may be administered in 15-grain doses, or camphor tincture in full doses, or, if preferred, two of the following pills at bedtime:

R.—"Lactucarii,
Pulveris camphoræ, ää., ℥ij.

M.—ft. pil., No. xx."

Treatment of Gleet.—In the continuation of the lectures of Dr. Bumstead on venereal diseases, the subject of *gleet* is treated of in the November issue of the *New York Journal of Medicine*. In the treatment, "the bowels should be kept open daily," and "one of the following pills taken at bedtime will usually insure a free stool in the morning:

R.—Strychniæ, gr. ss.
Pil. colocynth. comp., 3ss. M.

Divide into thirty pills."

As a tonic and astringent, the muriated tincture of iron is usually indicated. The proper dose is usually from five to twenty drops, three times a day. Tincture cantharides is also indicated, and may be combined with the iron, as in the following formula:

R.—“Tincturæ cantharidis, 3ij.
 Tincturæ ferri chloridi, 3vj. M.
 Ten drops, in water, three times a day.”

Where the constitutional impairment is considerable, quinine may be added to the treatment, as in the following:

R.—“Tincturæ cantharidis, 3j.
 Quiniæ sulphatis, 3ss.
 Tincturæ ferri chloridi, 3ij.
 Acidi sulphurici diluti, . . . (gtt.) xxx.
 Aquæ destillatæ, 3viij. M.
 One ounce three times a day.”

In regard to local treatment, Dr. Bumstead speaks highly of bougies. Except when they are found to aggravate the symptoms, “the passage of the bougie may be repeated every second or third day at first, and afterwards every day, or in some instances as often as twice a day.” If desirable, the bougies may be medicated, and the following ointment will be found of service:

R.—“Unguenti hydrargyri, 3ss.
 Extracti belladonnæ, 3ss. M.”

Of injections, as in gonorrhœa, he ordinarily prefers the sulphate of zinc. “From two to three grains of the sulphate of zinc to the ounce of water may be taken as the standard of medium strength, and the solution should be employed as frequently as the patient is able to pass his water, or every two or three hours.” Of blisters, he does not think as highly as does Dr. Milton; in obstinate cases, however, he thinks they are worthy of trial.

Balanitis.—In continuing the subject of venereal, Dr. Bumstead devotes one lecture to *balanitis*. In regard to treatment, “All that is necessary, in most cases, is to free the parts from any collection of matter by gently washing them with tepid water, and then to cut a piece of lint or soft linen into pieces about an inch square, and laying them upon the glans with their upper margin well up in the corona, to draw the prepuce over them. In this manner the inflamed surfaces are isolated from each other, and speedily take on a more healthy action.” If the case should prove obstinate, the lint may be moistened in the following mixture, and changed three or four times in the twenty-four hours:

R.—“ Extracti opii, ʒj.
 Zinci sulphatis, gr. vj.
 Glycerin, ʒj.
 Aquæ, ʒij. M.”

Or the following may “ be introduced between the glans and prepuce by means of a camel-hair pencil:

R.—Cerati simplicis, vel. mellis,
 Olei olivæ, āā., ʒj.
 Hydrargyri chloridi, ʒss.
 Extracti opii, ʒj. M.”

“The influence of a long prepuce in producing relapses of this disease has already been referred to. I have sometimes succeeded in remedying this by directing the patient to keep his prepuce constantly retracted by means of a narrow bandage around the penis, posterior to the glans.” This should be worn for several weeks, and if it prove unsuccessful, “our only resort is the removal of the superfluous integument by circumcision.”

REVIEWS AND BIBLIOGRAPHY.

Elements of Medical Jurisprudence. By THEODRIC ROMEYN BECK, M.D., LL.D., Professor of Materia Medica in the Albany Medical College, &c., &c., &c.; and JOHN B. BECK, M.D., Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons of the City of New York, &c., &c., &c. Eleventh Edition. With Notes, by an Association of the friends of Drs. Beck. The whole revised by C. R. GILMAN, M.D., Professor of Medical Jurisprudence in the College of Physicians and Surgeons of New York. In two volumes, 8vo., pp. 884 and 1,003. Philadelphia: J. B. Lippincott & Co. 1860.

There are but few circumstances in life where physicians have appeared at greater disadvantage, been more embarrassed and discomfited in the expression of their honest convictions, and brought more disgrace upon the profession, than as medical witnesses in courts of justice. The subject of law, and of the application of medical knowledge to the judicial investigation of legal questions, is not one of the physician's every-day duties, has nothing to do with the mitigation of the physical suffering of his friends and patrons, and is, consequently, sadly neglected in his routine of daily study. Physicians of superior attainments and practical skill have often made a sorry appearance in

giving medical evidence, and felt the necessity of a more thorough acquaintance with subjects having a medico-legal bearing. Hence the importance, for our reputation and the honor of our profession, that we, as physicians, make ourselves thoroughly acquainted with the latest and best works upon Medical Jurisprudence.

Forensic Medicine is, comparatively, a recent science. The first work upon the subject was written by an Italian, but little more than two and a half centuries ago. When Paulus Zacchias published his great work, "*Questiones Medico-Legales*," in Rome, then the medical, as it was the political emporium of the world, near the year 1625, it was thought that Forensic Medicine had reached its acme. The work was one of great value, particularly for that time, but it was voluminous with the thousand superstitions of that superstitious age. From that day to the present, the science of Medical Jurisprudence has found earnest collaborators in Germany, France, England, and last, but not least important, in America. Among the latest and best works upon this subject, published in England, is Taylor's "*Medical Jurisprudence*;" the best work from the French press is probably that which has just come to us, the product of the conjoint labors of J. Briand, M.D., and Ernest Claude, and the latest written in America is the result of the conjoined labors of Wharton and Stillé. The work before us was first published in 1823, and to write a review of it in 1860 would be a work of supererogation. When we say that Beck's "*Medical Jurisprudence*" was first published thirty-six years ago, we hope not to deter any of the young men who have since assumed the responsible duties of our profession from consulting its pages. Since then the work has gone through several editions with corrections and additions, and to-day stands the most complete upon the subject of any in the English language. Since the tenth edition was published, the author has retired from his labors and gone to his reward. Dr. T. Romeyn Beck died four years ago, and the present editor, Prof. C. R. Gilman, M.D., says: "After his death it was ascertained that he had, with characteristic industry, collected a large amount of matter for a new edition of his treatise on Medical Jurisprudence. These materials were, by his family, placed in my hands, with a request that I would prepare the new edition for the press. Conscious of my own inability to do justice to such a trust, I sought aid from the friends of Dr. Beck. The required assistance was cheerfully rendered, and I was soon enabled to place most of the more important chapters in competent, as well as friendly, hands. In this way, I hope that the public are assured of a good edition of the

book, while the friends of the author have a very welcome opportunity to pay a sincere and well-deserved compliment to the memory of a wise and good man.”—(*Editor's Preface.*)

The tenth edition of Beck's "Medical Jurisprudence" was published in 1850, three years before the commencement of the MONTHLY, and, consequently, the work has never been reviewed in our pages. It has, however, been so long before the profession, that we will not now attempt a review, though it may not be inappropriate to indicate the kind of talent that has been brought to bear to enrich this posthumous edition.

Chapter 1st is devoted to Feigned Diseases, and chapter 2d to Disqualifying Diseases, and both have been carefully revised by R. H. Coolidge, M.D., Assistant Surgeon of the United States Army. The additions are quite numerous and very appropriate. Chapters 3d, 4th, and 5th, respectively, upon Impotence and Sterility, Doubtful Sex, and Rape, were under the editorial supervision of Austin Flint, M.D., Professor of Clinical Medicine in the New Orleans School of Medicine. The additions to these chapters are few, and appended as foot-notes. But, if few, it was because but little was required to bring the subjects fully up to the present state of our knowledge. Chapters 6th and 7th, upon Pregnancy and Delivery, were edited by J. P. White, M.D., Professor of Obstetrics in the University of Buffalo. Some important additions have been made to the text in these chapters, but more has been done in this way by Prof. Gilman than by Prof. White.

Chapters 8, 9, 10, 11, and 12, upon subjects respectively of Infanticide, Legitimacy, Presumption of Survivorship, Age and Identity, and Insurance upon Lives, were under the exclusive editorial control of Prof. C. R. Gilman. In these chapters, the additions to the text are quite frequent and important. Chapter 13th, upon Mental Alienation, completes the first volume. This chapter is edited by D. T. Brown, M.D., Resident Physician to the Bloomingdale Lunatic Asylum, and the additions made by him and by Prof. Gilman respectively, add materially to this important chapter.

Chapter 14, upon Persons Found Dead, is edited by Prof. Gilman. Chapter 15, upon Wounds of the Living Body, is edited by John Watson, M.D., President of the New York Academy of Medicine. Chapters 16 and 17 are devoted to Poisons, and edited by B. W. McCready, M.D., Physician to the Bellevue Hospital. Chapters 18 and 19 are devoted to Irritant Poisons, and 20 and 21 to Narcotic Poisons, all of which are edited by Samuel St. John, M.D.,

Professor of Chemistry in the College of Physicians and Surgeons of New York. Chapter 22 concludes the second volume, and treats of Medical Evidence. Many and important additions have been made by the respective editors of the second, as well as the first volume. We have not the space to call attention to the respective editorial additions, and, lest we be charged with partiality and injustice, we pass the whole without special remark. It is, however, but just to say that the watchful eye of Prof. Gilman has been over the whole work, and there is scarce a page but shows his hand in the additions and revisions.

Of the first edition of this work, the *Edinburgh Medical and Surgical Journal* said: "At length, however, the English language may boast that it is possessed of a general work on Medical Jurisprudence, which will not only stand comparison with the best of the kind that the continent has produced, but which may also be referred to by every medical jurist as a monument worthy of his science, and as a criterion by which he is willing that its interest and utility should be tried. Under the unassuming title of 'Elements of Medical Jurisprudence,' Dr. Beck has presented us with a comprehensive system, which embraces almost every valuable fact or doctrine relating to it. Each of its diversified departments has been investigated so minutely, that few cases can occur in practice on which it will be necessary to seek elsewhere for further information. At the same time, by studying succinctness and shunning those verbose oratorical details with which other writers, and particularly those of France, abound, he has succeeded in rendering his treatise comprehensive within a singularly moderate compass. We may securely assert, that a work on the subject is not to be found in any language which displays so much patient and discriminating research, with so little of the mere ostentation of learning."

This opinion, expressed thirty-six years ago, and then well deserved, is pre-eminently just of the work as it now lies before us, with its many additions and revisions. The paper, typography, and binding of this edition is in the usual good style which has so long characterized the issues from the press of Lippincott & Company. o. c. g.

The Transactions of the American Medical Association. Vol. XII. Philadelphia, 1859.

The results of the meeting of the Association held in Louisville last May, and embodied in this volume, are less pretentious than the

bulky tome of the preceding year, yet in size quite large enough for convenience. The contents are not as varied as many of the preceding volumes; but as far as a cursory examination will permit us to judge, freer from objection than any of its predecessors. Six papers constitute the volume, apart from the minutes of the meeting, the address of the President, the Code of Ethics, Plan of Organization, and Catalogue of Members. These six papers take up 565 pages, and one of them alone runs through over 400, leaving an average of less than 30 pages to the other five.

The first paper is a "Report of the Special Committee on Government Meteorological Reports," by Richard H. Coolidge, M.D., which gives briefly an account of the action of the U. S. Government in relation to Meteorology, the nature of the publications issued upon the subject by the Smithsonian Institution, and the joint action of the Patent Office in carrying out, by the aid of the Medical Department of the Army and the Smithsonian Institution, an extensive plan of meteorological observations. The committee recommend that each County Medical Society should, through a regularly appointed officer, co-operate with these three government institutions in procuring a more extended series of observations, by means of a uniformly adopted register, which is given at the close of the report. We call attention to this report, and urge all County Medical Societies in this State to respond immediately to its spirit and letter.

The second report is from the "Committee on Criminal Abortion," calling upon State Medical Societies to urge to active legislation upon the subject, the Legislatures of the respective States.

The third paper is a "Report on the Medical Topography and Epidemics of California," by Thomas M. Logan, M.D., of Sacramento. An admirable and carefully-digested report, well illustrated by maps and tables, presenting the results of the author's investigations in a most satisfactory manner.

The fourth paper is a "Report on a Uniform Plan for Registration Reports of Births, Marriages, and Deaths," by W. L. Sutton, M.D., of Kentucky. This is a timely and most desirable paper. The mortuary statistics of the country at large are most unsatisfactory, and the difficulties which the student meets at every step in the investigation of the statistics of the births, marriages, and deaths throughout the Union, as a whole, can only be remedied by the adoption of some such plan as is recommended by the author of this report. A few States—and among them Rhode Island may be particularly applaud-

ed—have done much in this way; but the object of this report is to furnish a plan of registration to be adopted by all.

The last report is "On the Topography and Epidemic Diseases of Michigan," by J. H. Beech, M.D., of Michigan. This is more an earnest of a report which was intended to be made, an abstract of which was sent to the Association, but which was not completed in time for publication.

The feature of the volume is, however, the lengthy Essay of Dr. Joseph Jones, of Ga., entitled "Observations on some of the Physical, Chemical, Physiological and Pathological Phenomena of Malarial Fever." It takes over 400 pages of the volume. Our space is too limited to give even a short abstract of this valuable paper. We can only present the titles of the chapters, as an index to the whole. The first three chapters are devoted to the consideration of the nature and extent of Pathological Investigations; the fourth investigates the changes of the blood in Malarial Fever; the fifth, the changes of the organs and tissues and apparatus of the bodies of those who have died with the different types of malarial fever, intermittent, remittent, and congestive; the sixth and last considers the circulation, respiration, temperature, state of the skin, tongue, and changes of the urine in intermittent, remittent, and congestive fever; the principles of treatment based upon these observations, with numerous illustrative cases. This is one of the most valuable papers that has as yet been presented to the Association, and alone makes this volume one of the best of the series. Taken together with the other communications, though fewer in number than for several years past, they yet comprise a volume not inferior in scientific interest to any of those preceding it.

D.

The New American Cyclopædia: A Popular Dictionary of General Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Volume VIII. *Fugger—Haynau.* New York: D. Appleton & Co. 1859. pp. 788.

We do not believe that the regularity with which the volumes of this Cyclopædia leave the press has ever been excelled, if equaled, in the publication of any work of like magnitude. From present indications, the whole will probably be comprised in the proposed number (15) of volumes, making, when finished, the freshest Cyclopædia claiming the attention and patronage of our people.

It is impossible, of course, to examine all the articles contained in

such a publication, and our opinion must necessarily be based upon those to which accident has called our attention. Those on scientific subjects are generally accurate, concise, and *au courant* with the discoveries of the day. The collaborators are generally men acquainted with the subjects assigned them, writing *con amore*. The notice of Dr. Robert Hare is one that his eminent position, as a savant, demanded. We rejoice to find that his claims to the discovery of the compound blowpipe are properly set forth, and that his errors on the subject of spiritualism are but noticed. "Nil de mortuis nisi bonum" is as true in sentiment now as when first written by the Latin poet. Let the memory of Hare be connected with his scientific discoveries, and not with those delusions which haunted him occasionally towards the terminus of his life. The article on the Scotch philosopher, Hamilton, written by the loving hand of his greatest American admirer, is a model of biographical excellence, furnishing a most interesting account of his life and exhibit of his philosophy in a wonderfully concentrated form.

We must, however, protest against the employment of three double-columned pages for the life of one *notorious* as a traitor to his country, whose glory consists in his setting at defiance the religious and Union sentiments of his country, and whose name has been mentioned, on the stand, from Boston to Richmond, from New York to New Orleans, only to receive the detestation of Union-loving citizens, of all complexions of political faith. If such men claim a place in the Cyclopædia, let us propose that the record of their birth and residence constitute the notice, with a blank space to be filled up, by the owner of the book, with the time of their death. Our calling, as scientific men, does not allow us to mingle in politics, but our duties, as Americans, require us to condemn treachery to our Constitution at all times and in all places, and to lament anything like prominence given to the traitor. Again we urge it upon the editors and publishers to prevent the appearance of such abominations as the life of Garrison in a work so truly useful, and intended to be national, as the "*New American Cyclopædia*."

L. H. S.

An Introduction to Practical Pharmacy: designed as a Text-Book for the Student, and as a Guide for the Physician and Pharmaceutist. By EDWARD PARRISH. Second Edition, greatly enlarged and improved; with two hundred and forty-six Illustrations. Philadelphia: Blanchard & Lea. 1859. pp. 720.

The appearance of a second edition of this book shows that it

meets a want experienced both by physicians and apothecaries. There is always an amount of theory and science required in order that one shall practice, intelligently, an art. When this is collected by a competent person and properly digested, so as to be a convenient guide for the practitioner, the thanks of those practicing the art are richly due to the writer. We think we are but doing simple justice to Mr. Parrish when we say that his book is indispensable to the apothecary. The first edition was exhausted in a comparatively short time, and the second appears much improved, with an addition of "nearly two hundred pages of new matter."

To physicians, especially those who are obliged to dispense their own medicines, the book is also of great utility. Full accounts are given of the necessary implements for the dispensing of medicines, and for the accurate performance of all the processes of Galenical Pharmacy. In this latter department, the formulæ for a number of semi-official preparations, which have received, or do now receive, the confidence of local practitioners, are given, with proper directions for their preparation. The preparations from the organic and inorganic kingdoms are also fully explained, as well as the causes of failure which may occur in the hands of the inexperienced. And the book closes with that which is very important to our profession, a treatise on Extemporaneous Pharmacy, containing directions for the writing of prescriptions and the preparation of articles for the sick-chamber. We wish the book a wide circulation.

L. H. S.

PROCEEDINGS OF SOCIETIES.

Medico-Chirurgical College. January 12, 1860. Dr. LEWIS A. SAYRE, Chairman.

DR. CARNOCHAN read a paper on "Tic Douloureux, the Painful Affection of the Face, with a new Operation for its Cure."

In this paper the author gave his views of the pathology, seat and treatment of neuralgia of the face, and described his latest operation for exsection of the trunk of the second branch of the fifth pair of nerves, as far as the foramen rotundum of the sphenoid bone—an operation which he considered an improvement on the one he first proposed for the exsection of that nerve.

Before explaining the process of the operation, he alluded to the

literature of the subject, making reference to André, a French surgeon, who, in 1756, published a work upon this disease, and gave it the name of *Tic Douloureux*. Fothergill, in 1782, described it in very similar terms, under the name of "painful affection of the face," but was more complete and exact in his description than the French surgeon. About the same time, Thouret, another French surgeon, published an article upon the subject. All these writers mentioned chiefly the symptomatology of the disease.

Chaussier, another French surgeon, subsequently, in determining the seat of the disease, divided neuralgia into several divisions, according as it principally affected one or the other branches of the fifth pair.

Since then, in 1834, M. Bellingeri, of Turin, has advanced the opinion of an intermittent form of neuralgia, and has instituted three divisions—the inflammatory, the irritative, and the nervous.

More recently still, M. Bérard, in 1835-'36, closely considering the subject, has arrived at the conclusion that the nerves of the fifth pair alone, in the face, can be attacked with this disease; while yet later, M. Jobert de Lamballe maintains that all the nerves of the face are liable to be attacked by neuralgia. The author of the paper, regarding the facial nerve as a mixed nerve, it being joined by a sensitive branch from the ganglion of Meckel, believes that it cannot only be the seat of neuralgia at times, but that it is frequently the conductor of neuralgic phenomena and morbid sensibility to the nervous periphery of the face, when the true seat of the disease is located in the trunk of the second branch of the fifth pair.

The lesions characteristic of this disease are differently considered by different authors, some stating that none are present, the disease being a lesion of function, the organic cause of which is unknown. The seat of the disease has been referred to distant irritations, to a foreign body acting upon the nerve, to pressure of bone upon some portion of the nervous trunks, &c. By some it is referred to increased vascularity and thickening of the nerves; while Astley Cooper, on the contrary, states that the nerves present their natural color, and are rather diminished in size than enlarged.

Medical treatment is generally unavailing, and surgical treatment has heretofore proved equally so, affording at the best but temporary relief.

In a previous paper which the author has published, he has described an operation which he had projected for a remarkable case of *Tic Douloureux*, which consisted in the exsection of the trunk of the second branch of the fifth pair, beyond the ganglion of Meckel, at the

same time removing that ganglion, or insulating it with its branches from the encephalon. Experience had, however, dictated another operation, which he considered far better and more feasible than the one just referred to.

DR. CARNOCHAN then related at length the case which had been the subject of his recent operation, and presented the patient to the College.

The patient, J. C. Forbes, was first attacked in May, 1849, and after trying, in vain, all medicines in vogue, in the treatment of this disease, he consulted, in February, 1852, a surgeon of this city, who operated upon him, by dissecting away the entire cheek from the superior maxillary bone, from the nose to the prominence of the malar bone, and from the alveolar border to the margin of the left orbit. Relief followed, lasting seven months. The pain again returning, he consulted, in December, 1852, the same surgeon, who divided the nerve at its exit upon the cheek, at the infra-orbital foramen. This again gave relief till the fall of 1853, when the pain once more returned. The division of the nerve was once again accomplished, in January, 1854, by another surgeon of the city, who, in addition, cauterized the divided surface of the nerve with a red-hot iron. In September, 1854, another operation, of a similar character, was performed by another surgeon, but without relief; and, in October of the same year, he consulted Dr. Valentine Mott, who twice divided the tissues of the cheek freely, by subcutaneous incisions, once in October, and once in November, with, however, but very slight relief to the pain. In January, 1855, Dr. Mott divided the nerve at the infra-orbital foramen, as it had been previously done, with relief lasting five months.

The excruciating pain again returning, notwithstanding these severe operations, he consulted Dr. Carnochan, who, on the 3d August, 1855, exposed the infra-orbital foramen, in the same manner as had been done before, but carried the dissection of the flap along the floor of the orbit for half an inch; a piece of bone of the anterior part of the infra-orbital canal was removed by the chisel and hammer, and a quarter of an inch of the exposed nerve dissected out with the scissors.

This operation was attended with some relief, but the patient returned to him in February, 1856, begging for another operation. It was then proposed to trepan the antrum maxillare, separate the trunk of the second branch of the fifth pair from its connections, as far as the posterior part of the antrum, and then to exsect a still larger portion of the nervous trunk. This operation was performed on

the 21st of February, 1856. Immunity from pain followed this operation, lasting about thirteen months, returning again in March, 1857. Upon consulting Dr. Carnochan, it was decided to operate once more, the tenth time, when the tissues were dissected back, the outer and lateral wall of the antrum cut away by bone-cutters, and the loop of nerves resulting from the anastomoses, between the branches of the posterior and anterior dental nerves, destroyed. This operation was of little avail.

In September, 1857, the eleventh operation was performed by dissecting the cheek from the bone and dividing the cicatrices, which afforded temporary relief, probably from the local depletion.

In October of the same year, 1857, the twelfth operation was decided upon, with hopes of some relief, by destroying the ramifications of nerves emanating from the ganglion of Meckel, and also those branches which emanate from the small portion of the trunk of the nerve still remaining in front of the foramen rotundum. This was accomplished on the 2d October, 1857, and gave more or less relief for twelve months, when the pain again returned in great severity, but yielded to cataplasms of stramonium leaves, so that for some time he was comparatively easy.

In June, 1859, he requested another operation, thirteenth, when the remaining portion of the trunk of the nerve in front of the foramen rotundum was excised close to the foramen. The result thus far has been satisfactory.

Dr. Carnochan then proceeded to give some general considerations relative to the disease. The real seat of the disease he considers to be in the trunk of the nerve, in front of the Gasserian ganglion, in some part of it or in the whole of it. The causes are numerous, as pressure from various sources, sudden suppression of any of the important secretions, &c. In aggravated cases, where the trunk of the nerve is extensively diseased, no operation can be successful unless all the branches emanating from the trunk are cut off from communication with the brain. The key of an operation, then, is the removal of the ganglion of Meckel, or its insulation from the encephalon.

The steps of the operation last performed were then given in detail, and explained upon a wet preparation of a head presented to the College.

Operation.—The trunk of the second branch of the fifth pair extends from the anterior part of the Gasserian ganglion to the place of its emergence, at the foramen infra-orbitale. It does not follow a direct line from before backward, in its course, but forms a curve, the

concavity of which looks towards the mesial line. It may be divided in four parts, viz.: 1st. That between the ganglion of Gasser and the posterior orifice of the foramen rotundum; 2d. That embraced by the circumference of the foramen; 3d. That which passes through the spheeno-maxillary fossa; and 4th. That which courses along the infra-orbital canal to emerge from the infra-orbital foramen.

An incision is made, commencing opposite the spheeno-maxillary fossa, upon the middle of the zygomatic arch, and extending forward and slightly downward, to a point a little below the foramen infra-orbitale. From the anterior extremity of this another incision is made downward, so as to divide entirely the tissues of the cheek and lip, midway between the median line and the commissure of the mouth. The soft tissues are now freely dissected from the malar and super-maxillary bones, and the nerve sought for as it emanates from the foramen infra-orbitale. This found, it is isolated from the other tissues, and the foramen and lower border of the orbit are completely exposed. The crown of a small trephine is then applied immediately below the infra-orbital foramen, and the antrum opened by removal of a portion of its anterior wall. This accomplished, with the chisel and Lürer's forceps, the lower part of the malar, and the outer portion of the superior maxillary bone connected with it, are removed as high upward as a line running horizontally forward, on a level with the lower border of the zygoma. The outer wall of the antrum is made bare of soft tissue, and with the bone forceps this wall is removed. The cavity of the antrum being now freely exposed, the nerve is detached from its upper wall from before backward, breaking down the wall of the infra-orbital canal, and carefully avoiding, at the same time, encroachment upon the soft tissues of the orbit.

It now remains to detach the portion of the nerve passing through the spheeno-maxillary fossa with the ganglion of Meckel. At this stage of the dissection, the lower jaw must be held firmly and depressed by an assistant. The tissues lying upon the posterior wall of the antrum are separated from this part, and pushed backward by the finger and the handle of a scalpel. The spheeno-maxillary fossa is now exposed, and the internal maxillary artery is seen sending off several branches, and is close related with the nerve. It is very necessary to avoid wounding this artery. By this time the trunk of the nerve is extensively detached, and it can be pulled downward so as to facilitate its isolation from the other tissues. The foramen rotundum must now be sought for. Its position can easily be ascertained by tracing with the finger the anterior border of the external pterygoid plate up-

ward to its junction with the angle formed by the *body* and the *great ala* of the sphenoid bone. Proceeding inward from the upper part of this angle, for about two lines, the foramen rotundum is reached. With a blunt hook, such as is used in strabismus, the nerve is still further detached where it emerges from the foramen. Gentle traction is now used upon the trunk thus isolated, and grazing the surface of the sphenoid bone, with delicate blunt-pointed curved scissors, the nerve is severed at the base of the skull. The ganglion of Meckel can now be removed, or the branches descending to form it, not cut, can be divided.

In the early steps of the operation the bleeding is considerable, and the vessels must be at once secured. A pledget of lint is laid in the wound, and the lips of the incisions are brought together by points of the twisted suture.

In Forbes' case, the same external incisions were made as described in the operation just described. The stump of the nerve, remaining between the posterior part of the infra-orbital canal and the foramen rotundum, was sought for and found. It was then isolated from the surrounding tissues, and divided at the point of emergence from the foramen rotundum.

In conclusion, he embodied his views in relation to aggravated neuralgia of the face in the following propositions:

I. That the second branch of the fifth pair, extending from the ganglion of Gasser to the foramen infra-orbitale, has two peripheries: one, formed by the terminal branches of the trunk, given off along its course, to the superficial parts of the face; the other, by the terminal branches emanating from the ganglion of Meckel.

II. That in cases of severe *tic douloureux*—the *dolor crucians faciei* of Fothergill—the seat of the disease is in a portion of the trunk of the nerve, or in the entire trunk, between the ganglion of Gasser and the foramen infra-orbitale, including that part embraced by the foramen.

III. That the trunk of the nerve being injured or diseased, pain is felt at its periphery, as well as in the part morbidly affected.

IV. That impressions, acting upon the periphery of the nervous trunk, will be reflected upon the trunk, and give rise to paroxysms of neuralgic pain.

V. That the ganglion of Gasser, or the *common trunk* of the fifth pair, cannot be the seat of the disease, because experiments upon living animals, and pathological facts derived from post-mortem examination, demonstrate that, when this ganglion and the trunk of the

fifth pair are destroyed or injured, the eye of the corresponding side becomes destroyed from defective nutrition, and also that the other organs of *special* sense manifest symptoms of functional disturbance.

VI. That the encephalic strands of the fifth pair, on the cerebral side of *the common trunk*, cannot be the seat of the disease; as in such condition of the brain there would be symptoms denoting cerebral disturbance or disease, which never exist in *tic douloureux*.

VII. That division of the nerve externally to the foramen infra-orbitale, or anterior to the diseased portion of the trunk, will not effect a cure: because the point of disease being still left, the morbid sensibility is referred to the locality of the periphery, although that has been removed, or insulated.

VIII. That when only a portion of the trunk of the nerve is removed, anterior to the ganglion of Meckel, the remaining portion may become affected with the disease, and the symptoms be renewed with the same severity as before the operation.

IX. That the only operation which will cure the disease is the exsection of the trunk of the nerve on the cerebral side of the ganglion of Meckel; because, 1st, the diseased part will thus be removed; 2d, because the two peripheries of the nerve must thus be insulated from the encephalon; 3d, because the influence of the ganglion of Meckel, in supplying morbid nervous sensibility, is destroyed; 4th, because the sensibility of the two peripheries of the nerve is obliterated, and consequently external impressions cannot be reflected or transmitted.

X. That there is a possibility of the neuralgia returning for a time, even after the exsection of the trunk beyond the ganglion of Meckel, from disease attacking the small portion of the nerve still remaining in front of the ganglion of Gasser, or from pressure upon it, resulting from osteitis and contraction of the foramen rotundum; the pain being referred, as already explained, to the original seat of the periphery.

XI. That in such a case, however, the stump of the nerve, whether diseased or compressed by the circumference of the foramen rotundum, would be placed under circumstances leading to atrophy or resolution; and that the disease, existing for a short time from such causes, would eventually subside.

XII. That the three trunks of the fifth or trifacial nerve, emanating from the ganglion of Gasser, and supplying in their aggregate the general sensibility to the face, when affected by neuralgia, are to be subjected, alike, to the same rules in regard to the etiology, pathology, and treatment.

DR. DEWEES said: I should like to ask the question, whether Dr. Carnochan has stated it to be a fact, that there can be no further neuralgia, if the nerve is exsected at the point last mentioned? Would there not be neuralgic transmission by disease of the remaining portion of the trunk, even when it was cut off at the foramen rotundum? I mean posterior to the foramen rotundum, between the foramen rotundum and the brain?

DR. CARNOCHAN.—In cases where the trunk of the nerve is diseased, I can readily see that, although you may cut away all the branches in front, the sensibility will be referred to the periphery. But still, I would regard this as an exceptional condition.

DR. DEWEES.—If the cause of a neuralgia were at the origin of the fifth pair, would you have peripheral neuralgia?

DR. CARNOCHAN.—By all rules of nervous transmission, I should think that that would be the case. Strictly speaking, neuralgia of the face must be situated at the anterior part of the trunk; at least, I have no doubt that such is the case.

DR. DEWEES.—I have a specimen obtained from a syphilitic patient, consisting of a tumor of the pons, situated near, and pressing upon, the medulla oblongata. The patient suffered from the most intense neuralgia, and I suppose that the tumor was probably the cause. The balance of the nerve was in a sound condition. Another point in this very valuable paper, which I should like to mention, has reference to the condition of the eye after division of the fifth pair. Now this condition is not owing at all or entirely to division of the fifth pair, but it is due to the injury which is done to the jugular ganglionic branches which accompany the fifth pair. When these are divided, you have opacity and subsequent suppuration of the cornea. When the fibres of the fifth are alone divided, this disorganization does not take place. I should also like to ask, whether you have operated for neuralgia of the facial, or the seventh pair, where the pain, which is of a lancinating, tearing character, is situated just behind the ear? In one case Dr. Smith operated, cutting the branch of the fifth going to the seventh, without relieving the pain, but producing paralysis of the face.

DR. CARNOCHAN.—I have not operated in such a case, because, in the first place, I should be unwilling to produce paralysis of the face; and for another reason more potent than that, that the facial is probably attended by branches from the ganglion of Meckel.

DR. WORSTER.—Have you seen paralysis of the eye in these cases, where the nervous extremities were affected; where, for instance, the

irritation is caused by a tooth? In one case I have seen a patient suffer from severe toothache in the evening; in the morning the eye was found to be blind, and remained so for ten years. By a judicious course of tonic treatment, such as riding on horseback, exercise in the open air, the sight was finally restored.

DR. CARNOCHAN.—I have not seen such a case as that; I can easily understand how such a case could occur from neuralgia. Amaurosis, we know, follows sometimes an injury on the frontal branch of the fifth pair, and it can readily be perceived how something of the same kind might take place from injury of one of the other branches of the same nerve.

DR. WORSTER.—The case referred to presented all the symptoms of amaurosis.

DR. DEWEES.—In the case mentioned, the cause was probably owing to some disturbance of the tubercula quadrigemina; a blood-vessel bursting in the region of the tubercula quadrigemina and producing pressure, would probably be followed by instant annulment of the sight. I have known a child, which, during the daytime, was suddenly struck blind, asking why candles were not lit; death ensued, and on post-mortem examination, the tubercula quadrigemina were found to be disordered.

DR. MEIER.—This operation is certainly one to which no objection can be raised. The ganglion of Meckel cannot be looked upon as the organ from which distinct sensation originates. Meckel himself stated that in his dissections he had met with cases in which the ganglion of Meckel was entirely absent, and yet sensation through the fifth pair had existed properly during life.

DR. NELSON.—This case reported is one of the best I have ever met with or heard of. The length of the case, the complete history that has been kept of it from day to day, is really very valuable. There is something very curious in the series of operations that were performed. After the first operation, the patient was relieved. A short time after, there was another operation, and again the patient had relief. After that four or five more operations were performed, and each time the patient was relieved. It is to be noted, that these were all performed anterior to the foramen infra-orbitale. In the last three or four of these operations, I do not think that the nerve was divided any nearer to the brain than it had been before. After that, Dr. Carnochan operated and removed a considerable portion of the nerve itself. There was an operation that might be relied upon; but still, in a short time, there was a renewal of the pain. This *tic douloureux* is an ex-

traordinary complaint. I do not know that it is found anywhere but in the face. Persons that have not seen a patient suffering under this disease can form no idea of the pain; there is no cutting or burning that is equal to it. While on this subject, I will relate one or two cases which are a little applicable in this connection. The first was that of an old gentleman, who complained of pain in the extremity of the penis. In describing it, he made use of the expression, "*lancinating pain*." This is one of the characteristics of cancer. The gentlemen who were attending him, supposing that he might have cancer, quietly laid their heads together and cut off his penis. A year or two after that, the gentleman felt great pain in the penis, which had been cut off and thrown away. It was a simple case of calculus in the bladder.

I have seen some four cases of this *tic douloureux*, and in each case I divided the nerve, which was followed by relief for a short time. There was no complete cure, however, in any one case out of the four. I have had two other cases, both of which were quite interesting. One was a lady who complained of intense pain on the outside of the index finger. She suffered exceedingly; the pain frequently coming on in paroxysms, although she was never entirely free from pain. She applied to me for an operation. I made an opening in the palm of the hand, and cut away an inch of the branch of the median nerve, going to the finger. For a time she appeared perfectly well. The outside of the finger after the operation remained numb, and always felt cold. About two years afterwards the pain returned, although I had removed not less than an inch of the nerve.

DR. SAYRE.—Did the natural heat return with the pain?

DR. NELSON.—No, sir; although the pain came back, the finger remained cold. I think in this case that the trouble was undoubtedly seated further back in the nerve. The second case was that of a reaper, who cut herself with a sickle on the point of the thumb. Shortly after the wound healed, she was seized with neuralgic pains in the thumb, and suffered exceedingly. After enduring it for about a year, she came to the place where I was, when I cut the nerve. This was instantly followed by relief, but eighteen months afterwards the pain returned in the same place as before. In this latter case the disease could not have had its origin in the wound inflicted with the sickle; could it be possible that it had its origin high up in the brachial plexus?

The lady who suffered from pain in the index finger thinks that it had its origin from pricking herself with a needle.

DR. SAYRE inquired as to the longest interval between the operations in Dr. Carnochan's case.

DR. CARNOCHAN.—It is seven months since the last operation.

DR. SAYRE also wished to inquire whether he had discovered, in cutting out the nerve, any new formation that resembled nerve.

DR. CARNOCHAN.—Yes, there was. After the first operation, there seemed to be a filling up, where the nerve had been excised, of nervous fibrillæ.

DR. SAYRE.—Will not nervous junction again take place, even after the ganglion of Meckel has been cut away?

DR. CARNOCHAN.—I think not; nervous reproduction must certainly have some limit, just like bone. If you excise a small portion from the tibia it will be reproduced; but excise a larger portion, and the osseous reproduction will be incomplete.

DR. DEWEES remarked, that he did not suppose that there were any new real nerve-corpuscles re-developed in these cases.

DR. SAYRE then related the following case: A gentleman pricked his foot with a thorn. This was followed by symptoms very much resembling tetanic spasms, under the influence of which he would become nearly wild, and become, in fact, almost crazy with the pain. When the foot was freely laid open he would be free from pain, so long as the wound remained unhealed. When the wound became healed, he suffered as much pain as ever. Obtaining no relief, he came to this city and consulted Dr. Parker, who removed a portion of the tibial nerve; he recovered and remained well for three or four months, after which time the pain returned, and he again applied for an operation. On this occasion about two and a half inches of the nerve were removed. He was then free from pain for about a year, when it returned, and became so intense, that he insisted on the leg being amputated. The operation was accordingly performed by Dr. Sabine, and I had an opportunity to dissect the limb, and found that the nerve was replaced. I did not examine it microscopically, but so far as I could judge by the knife and the eye, it appeared to be nerve, and the fact was that the portion which had replaced the excised part could not be distinguished from the rest. The preparation is now in the museum of the College of Physicians and Surgeons. The man was restored to health, and for four or five years after the operation, during which time I watched him, had no new attack. I must confess that in this case, if the disease was seated above, I do not see how cutting off the limb would prevent the disease.

Academy of Medicine. Regular Meeting, January 4th, 1860.
Dr. JOHN WATSON, President, in the Chair.

The Academy met at its usual hour, the special business of the meeting being the annual election of officers. During the progress of the election, the subject of Diphtheria was introduced to the Academy by the President, who called upon the members to give their views relative especially to the differential diagnosis between it and croup, muguet, measles, putrid sore throat, &c. He stated that much confusion existed upon this point, and that, in a recent work published by the New Sydenham Society, in which several papers upon the subject, by different authors, were brought together, there was no clear definition given to distinguish it from the diseases he had mentioned.

Dr. FRANCIS referred to the richness of the literature of croup. He spoke in admiration of the writings of Bard and Bailey, of New York, who were among the earliest in this country, and indeed in any country, to give a definition to this disease. He regarded croup as an inflammatory disease, and believed in the great efficacy of emetics, and of vitriolic emetics in particular. He had given a tea-spoonful of a saturated solution of sulphate of zinc every half hour, and esteemed this treatment very highly.

Dr. KISSAM also regarded croup as of an inflammatory nature, accompanied by a disposition of the blood, which favored the deposition of a false membrane, upon blistered surfaces, the edges of a wound after tracheotomy, as well as upon the mucous surfaces. He favored the use of calomel in the early stages of the disease, which, if persevered in, he had reason to believe had prevented the disease from progressing to the more advanced and fatal stages. In conjunction with this treatment, he had used antimonials in small doses.

Dr. VAN BUREN drew a line between that form of croup which comes on suddenly at night, and readily yields to a mild emetic, and the more insidious form which is attended by an exudation. The first was spasmodic, the latter true croup. He did not believe in bloodletting, and had not seen any good results from calomel. The use of vapor of warm water he favored, and had derived great benefit in some severe cases from the local applications of nitrate of silver.

Dr. PERCY thought there had been an evident change in the type of the disease during the last few years. Croup, he thought, now presented more of an asthenic character than heretofore. In the treatment of the disease he had never used calomel, but he had found most decided beneficial results from frequently repeated doses of alum. This suggestion, he said, he owed to Dr. Miller, and he had cause to con-

gratulate himself upon the prompt and efficient action of this form of medication. Emesis was almost instantly produced, which was not attended by any great degree of prostration, as from other forms of emetics. He had also been in the habit of giving *veratrum viride* to control the circulation, and had reduced the pulse from 150 to 100, keeping it there by means of the *veratrum* without producing any emetic action.

DR. DOUGLAS mentioned the division of croup in true and false; the latter being of a spasmodic character, needing little or no treatment; the former of an inflammatory type, requiring active medication. The disease now prevalent he considered as different from either of these. It was a blood disease, and had its differential characteristics which distinguished it from membranous croup. In the one there was a discharge from the nostrils, which was thin, acrid, excoriating the nares, often sanious in severe cases, which was not present in the other.

In diphtheria, the countenance was usually flushed: not confined to the cheeks, as in croupous pneumonia, but suffused; not of a bright red, but a red tinged with yellow. In membranous croup, the countenance, on the contrary, was almost universally pale. The cough, too, presented marked differences. The sharp, ringing, dry, metallic cough, so prominent in membranous croup, was wanting; the angle having a moist, liquid character in diphtheria. So, too, the respiration, which is labored and very frequent in membranous croup, is not increased to the same degree in diphtheria; the mechanical obstruction not being so great in the latter as the former.

These had been the peculiar differences he had remarked in the cases which had fallen under his observation. In one case which he had recently attended, the respiration was almost natural in frequency, averaging only 24 in a minute; the child being nine years old. The pulse maintained a fair ratio to the respiration—about as five to one—but was easily accelerated on the least exertion. There was an evident prostration of the forces, which would not admit of any depletory measures of any kind; and, viewing this disease as a blood disease, he did not think that calomel was admissible, though he could conceive that in membranous croup, with a firm exudation, it might be used to advantage. In the disease we have now under consideration, he esteemed a supporting treatment called for, and placed most reliance upon quinine and iron, in connection with some stimulants and a proper diet.

DR. B. F. BARKER remarked, that when in Albany last year, in attendance upon the State Medical Society, he had seen several cases

of diphtheria, which was then prevalent in that city as an epidemic. He recalled one case which he visited with the attending physician, and had seen the child sitting up in bed playing with intelligence clear, but presenting the symptoms of this disease in a marked manner. He asked the physician his prognosis of this case. It was, that the patient would die within twenty-four hours. He had not seen a case from that time till late in the fall of last year, when he was called to see a lady in this city, who had been unwell for a fortnight from general debility. He was called at night on account of her being unable to pass her urine. This state had existed for over twenty-four hours, and the hypogastrium, upon examination, was found distended, and tender to the touch. An attempt to pass a catheter gave her great pain, when she was put under the influence of chloroform, and a large quantity of water drawn off. This gave but temporary relief. Opium was given internally and by suppositories and injections, and warm fomentations applied to the vulva, all without bringing any relief. Upon examination the next day, he found the vulva, the labia, and meatus covered with a membranous exudation similar to that he had seen in diphtheria. He immediately applied a strong solution of nitrate of silver, for the purpose of breaking up this exudation. After the exudation was removed, he applied to the parts a saturated solution of the chlorate of potash. He also gave the chlorate of potash internally, together with tonics and good diet. He mentioned this case as illustrative of the fact that this disease does not affect the mucous surfaces of the air-passages alone, but that all mucous surfaces exposed to the air are subject to diphtheritic exudation. He believed that the tendency of the blood, in this disease, was to *disorganization*, and that the vital powers required to be supported by a tonic plan of treatment.

DR. GARDNER resumed the discussion of Diphtherite, by saying that he had seen some cases of this disease, and while he agreed with Drs. Douglas and Barker in the views they had expressed, thought they had omitted two distinct features peculiar to diphtherite; that it was not only epidemic, but eminently contagious, and that a disagreeable diagnostic smell always accompanied the flow from the nose. He thought a vigorous tonic treatment and local applications to the throat were demanded. The membranous exudation, he thought, differed from that of membranous croup, by being less strong and tenacious, and not ever, in his experience, running down so as to make casts of the bronchi. He trusted that Dr. Jacobi, who had just entered, and who had a large experience in this disease, would give his views.

DR. JACOBI.—The main thing observed in diphtheria are the symptoms of entire dissolution of the blood. Hence it was difficult to make a correct diagnosis without the membranes being seen, as the general symptoms of the dissolution of the blood are very similar to those in other diseases, presenting the same character, such as scarlet fever, measles, etc. It would be very difficult, therefore, to make a strict diagnosis without the membranes being observed.

The membrane usually is seen on the tonsils and the uvula; but it is not necessarily confined to the throat; he had seen them on almost every mucous membrane of the body, especially on the mucous membrane of the vagina. The great majority of cases of diphtheria are so slight that there is hardly any necessity for medical interference; still, not unfrequently they assume a severe and dangerous character.

As to treatment, his experience, especially during the last two or three months, was not much in favor of the use of caustic to the membrane itself; and if this local medication had any beneficial effects, he thought that they were limited to the portions of mucous membrane on which no exudation had yet taken place, and where it might possibly prevent it.

Internally, the chlorate of potash and iron, especially the fluid preparations of the latter, and large doses of quinia, especially in such cases as set in with fever, were used. Lately, Dr. Jacobi had substituted chlorate of soda for the chlorate of potash. Chlorate of potash requires sixteen, chlorate of soda only three or four parts of water to dissolve it. He had repeated the experiments made by some French pathologists, and found that the diphtheritic membrane was more readily macerated in a saturated solution of chlorate of soda than of chlorate of potash.

While it was true that no essential difference could be detected between the membranous exudation of croup and that of diphtheria, yet there was a wide and characteristic difference between the two diseases. *Croup* had nothing to do with dissolution of the blood, while dissolution of the blood was the *main* pathological character of *diphtheria*; it is related, in this respect, to scarlet fever, measles, and typhus fever, all of which present this general morbid condition of the system.

DR. DOUGLAS inquired of Dr. Jacobi, what his experience was as regards the presence of albumen in the urine. He stated that he had not found it in the cases he had examined.

DR. JACOBI replied, that this albuminuria had been pointed out as a prominent symptom by Dr. See, of Paris, but that he had found it present in only about 25 per cent. of the cases he had examined.

DR. BARKER looked upon croup as a local disease, just as much as a pleuritis or a hepatitis. The constitutional symptoms attending croup are symptoms resulting from the local inflammation. *Diphtheria* is a constitutional disease, resulting from some specific poison, a certain *materies morbi*, attended with a local manifestation on the mucous membranes, chiefly of the throat. In *diphtheria* the constitutional symptoms precede the disease; in croup, the local disease precedes the constitutional. Another point—he was not aware that death from diphtheria ever results from the mechanical obstruction of the membrane, producing asphyxia; whereas, in croup, he believed that death is very frequently attributable to the obstruction of the membrane alone, although not always, death sometimes resulting from the violence of the constitutional reaction.

The tellers then announced the names of the following officers, who were elected to fill vacancies:

Dr. M. D. Van Pelt, *Vice-President*.

Dr. Jacob Harsen, *Trustee*.

Dr. Gurdon Buck, *Committee on Education*.

Dr. James Warren, *Committee on Ethics*.

Dr. S. S. Purple, *Committee on Admissions*.

Dr. Thomas moved that Diphtheria, its differential diagnosis from Croup, and the Statistics of Tracheotomy, be the subject of discussion for the next meeting of the Academy.

EDITORIAL AND MISCELLANEOUS.

— We are enabled to announce that, with the next issue of the MONTHLY, we shall commence the publication of a valuable series of practical Lectures upon “Displacements of the Uterus,” by E. R. Peaslee, M.D., Professor of Obstetrics and Diseases of Women and Children, in the New York Medical College. In presenting this new feature in our journal, we are confident we shall meet with the approbation of our readers, and that the lectures of Prof. Peaslee will prove to them a source of much attraction and information.

— The large amount of copy which has crowded upon our hands the last month prevents us from giving the usual quota of editorial and miscellaneous matter. We have been obliged to omit the proceedings of the last meetings of both the Medico-Chirurgical College and the Academy of Medicine. In the former, an interesting discus-

sion on Morbus Coxarius was held; and in the latter, the continuation of the discussion on Diphtheria. We shall endeavor to find space for these next month. Several short articles which we had prepared for this portion of our journal are crowded out.

— The *Kansas City Medical and Surgical Review*, a prospectus of which we received some weeks ago, has made its appearance. It is edited by Drs. G. M. B. Maughs and T. S. Case, contains 48 pages, and has for its original communications, among others, an article on "The Medical Topography of Kansas City and adjacent Country," by its senior editor, and another on the "Origin of Malarious Diseases," by Dr. Case. We wish our Western confrères, living in the shadow of the Rocky Mountains, an abundance of success.

— The last number of the *Boston Medical and Surgical Journal* closed the sixty-first volume of that oldest of the weeklies. In it we find the valedictory of the editors, Drs. Morland and Minot, who have so ably conducted this journal during the last five years.

The publisher announces, in the same number, that Drs. F. E. Oliver and Calvin Ellis will, with the issue of February 2d, assume the editorial care of the journal.

While we are sorry to part with the former editors, we welcome the coming ones into the editorial corps of our profession.

— In order that the *Monthly Summary*, which is prepared for our pages by Dr. O. C. Gibbs, of Frewsburg, N. Y., may be a complete mirror of the medical periodical literature of the day, we would be pleased if the editors of the different journals would double their exchanges with us, sending the duplicate copy to Dr. Gibbs' address. Upon our part, we will send a copy of the MONTHLY to any address which may be indicated by the editors of the journals who may comply with our request.

— The N. Y. Pathological Society is about to issue a volume of its transactions. This Society has now been in existence many years, and a collection of the most important of the communications made to it will be a most valuable addition to the literature of our profession. The reports of this Society have appeared in this and other journals of the country, so that the character of these transactions are well known, and need no explanation from us. For the benefit of those who may desire to have this volume, we will add, that but a limited number will be printed, and that to insure a copy, it would be prudent to subscribe for it. This may be done by addressing the Secretary, Dr. E. Lee Jones, 795 Broadway, N. Y. The price of the volume will be two dollars.

Items.—M. Courty, of Montpellier, has, he says, cured a lady of an attack of asthma, on whom, for four years, all the usual remedies had been tried in vain. His remedial agent was to inject six drops of a solution of sulphate of atropine, under the skin, as near as possible to the pneumo-gastric nerve.

— Dr. Burdel, of Vierzon, has stated to the French Academy, through M. Bernard, that intermittent fevers are always accompanied with glucosuria. Morgagni so firmly believes in the contagion of phthisis, that he admits, in his letters, to have scarcely ever made an autopsy of a tuberculous person.

— Laennec inoculated himself with tuberculous matter, and Alibert and Biett inoculated themselves with cancerous matter; and all the three concluded, from the absence of any local results, that these morbid products were inoculable. It is a curious fact, nevertheless, that Laennec should have died phthisical, and Alibert and Biett of carcinomatous affections.

— The French Academy of Sciences has received information of a new esculent of the tubercular kind, called *Shicama*, which grows in the neighborhood of Cuenza, near Granada.

— In 1813, De Quincey increased the quantity and frequency of his doses of opium so much, that he took 320 grains daily. Prodigious as this quantity is, it is only half what Coleridge was in the habit of taking.

— In Austria there are 330 public civil and 159 military hospitals, relieving about 400,000 persons a year; 40 lunatic asylums, with 6,000 inhabitants; 40 maternity hospitals, with 60,000 births per annum; 33 houses for enfants-trouvés, with 24,000 infants.

— The records of deaths in Paris, from 1708 to 1767, being 57 years, shows that long and severe winters were a cause of unusual mortality. By tables of mortality we are able to tell the number of persons who survive; thus making death take a census of the living. For example, in Paris, at one period, it was found that one death occurred out of every 35 persons. Take, therefore, the annual average of 18,000 deaths and multiply that by 35, and it gives 630,000 as the number of living inhabitants.

— According to statistics made by the French Institute, the months in which the greatest number of persons die are March, April, and May; and in which the fewest are August, July, and September.

— Professor Virchow, of Vienna, announces the discovery of the microscopic insect, *Trichina spiralis*, in the muscles of man.

Books and Pamphlets Received.

Elements of Medical Jurisprudence. By Theodoric Romeyn Beck, M.D., LL.D., &c., &c., and John B. Beck, M.D., &c. Eleventh Edition. With Notes by an association of the friends of Drs. Beck. The whole revised by C. R. Gilman, M.D., &c. Two volumes. Philadelphia: J. B. Lippincott & Co. 1860.

The Diagnosis, Pathology, and Treatment of the Diseases of the Chest. By W. W. Gerhard, M.D., &c. Fourth edition; revised and enlarged. Philadelphia: J. B. Lippincott & Co. 1860.

The Obstetric Catechism. By Joseph Warrington, M.D. 150 Illustrations. Philadelphia: J. B. Lippincott & Co. 1860.

A Treatise on Microscopical Diagnosis. By Gustav Von Dueben, &c. Translated, with additions, by Prof. Louis Bauer, M.D., &c. New York: John Wiley.

A Monograph upon Aconite: its Therapeutic and Physiological Effects, &c. Translated from the German of Dr. Reil. By Henry B. Millard, A.M., M.D. New York: William Radde. 1860.

The Life and Labors of Laennec: an Introductory Address. By Austin Flint, M.D.

Botany as an Ally of Medicine: a Lecture delivered to the Medical Society of the University of Nashville. By George S. Blackie, M.D., &c. Nashville. 1859.

Transactions of the Ninth Annual Meeting of the Illinois State Medical Society, held in Decatur, June 7th, 1859. Chicago. 1859.

Braithwaite's Retrospect of Practical Medicine and Surgery. Part XL. New York: W. A. Townsend & Co. 1860.

An Epitome of Braithwaite's Retrospect. In Five Parts. By Walter P. Wells, M.D. New York: Charles T. Evans, 1860.

On Criminal Abortion in America. By Horatio R. Storer, M.D., &c. Philadelphia: J. B. Lippincott & Co. 1860.

The Application of Photography to Medical Science, including a Process for Photographing the Microscopic Field. By Ransford E. Van Gieson, M.D. New York. 1860.

The Transactions of the American Medical Association. Vol. XII. Philadelphia. 1859.

Therapeutics and Materia Medica: a Systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By Alfred Stillé, M.D., &c., &c. Two vols. Philadelphia: Blanchard & Lea. 1860.

A Practical Treatise on Fractures and Dislocations. By F. H. Hamilton, M.D., &c. Illustrated with 289 wood-cuts. Philadelphia: Blanchard & Lea. 1860.

Introductory Lectures and Addresses on Medical Subjects, delivered chiefly before the Medical Classes of the University of Pennsylvania. By George B. Wood, M.D., LL.D., &c. Philadelphia: J. B. Lippincott & Co. 1859.

Proceedings of the American Pharmaceutical Association, at the Eighth Annual Meeting held in Boston, Mass. Boston: George C. Rand & Avery. 1859.

Human Physiology, Statical and Dynamical; or, the Conditions and Course of the Life of Man. By John William Draper, M.D., LL.D., &c. Second Edition. New York: Harper & Brothers.

THE AMERICAN MEDICAL MONTHLY.

MARCH, 1860.

ESSAYS, MONOGRAPHS, AND CASES.

Lectures on Displacements of the Uterus. By E. R. PEASLEE, M.D., LL.D., Professor of Obstetrics and Diseases of Women and Children in the New York Medical College.

(Delivered during the Session of 1859-60.)

GENTLEMEN—In conducting the Clinique for the Diseases of Women and Children during the present session, I shall first call your attention to displacements of the uterus. Some knowledge of the pathology and treatment of this class of diseases should be possessed by every practitioner; though, as a matter of fact, they are by a majority of our profession entirely overlooked. The clinique will constantly supply a large number of cases illustrative of the principles I shall adduce; and, avoiding all needless discussion, it will be my object, in as concise and familiar a manner as possible, to aid you in recognizing and appropriately treating the diseases under consideration. The other affections of the uterus and its appendages will receive attention in a subsequent part of the present course.

The displacements I have to consider are:

Prolapsus;
Retroflexion;
Anteflexion; and
Inversion.

But, before entering upon these respectively, certain preliminary

topics present themselves; and to these alone the present lecture is devoted—viz.:

I. The structure of the uterus.

II. Its normal position and relations to other parts and organs.

III. The agencies which maintain it in position.

IV. I shall also consider, *in general*, the causes of displacements of the uterus. V. Their symptoms. VI. The methods of recognizing them; and VII. Their prognosis.

I. Of the *structure of the uterus* and its appendages, and of the vagina, I have given a detailed account in the first part of my course on Obstetrics. I shall here merely recapitulate such facts as are necessary to a correct idea of the class of cases I am about to bring before you.

The *uterus* is of a flattened, pyriform shape, and is divided into body and neck, (the upper part of the body being also termed the *fundus*;) the former being $1\frac{1}{2}$ to $1\frac{3}{4}$ inch, and the latter about $1\frac{1}{4}$ inch, long. The whole uterus, therefore, measures from $2\frac{1}{2}$ to 3 inches. It is $\frac{3}{4}$ to 1 inch thick, antero-posteriorly; and about 2 inches wide across the widest part of the body. The neck, or *cervix*, is $\frac{7}{8}$ inch to 1 inch thick. The whole organ weighs 7 to 10 drachms in the virgin state, and from 12 to 16 drachms in those who have borne children. After the child-bearing period has passed, however, the womb becomes gradually atrophied, and in the very aged woman becomes as small as in the girl before puberty.

In speaking of the *cavity* of the uterus, we must, as before, distinguish between the body and the neck. Indeed, for all practical purposes, and especially in treating of displacements, the body and the cervix must be regarded as distinct, though continuous, parts. The proper *cavity* of the uterus corresponds with the body merely—though in length only, and not in form. It is an isosceles triangle in outline, its apex merging into the upper extremity of the canal of the cervix below, while its other two angles extend above to the entrance of the oviducts, or Fallopian tubes. As the anterior and posterior walls of the uterus are very nearly in contact, the cavity, just bounded, can contain only a few drops (some say 15 to 20) of any fluid. It is lined by a layer called a mucous membrane; though it cannot be regarded as such on any physiological grounds, and should be regarded in its natural state merely as an undeveloped decidua, as I have explained to you. It is from $\frac{1}{2}$ to 1 line in thickness, whitish-red, and remarkable for the immense number of simple tubes, termed glands, which penetrate its entire thickness to the subjacent muscular layer.

The *canal of the cervix* is continuous with the cavity of the uterus just described, but different in all respects. It is about $1\frac{1}{4}$ inch long, is spindle-shaped, (the upper extremity being smaller than the lower,) and is flattened from before backward. Its upper end is termed the *orificium internum* of the uterus, and the lower is called the *os uteri*. The latter often, in the virgin state, but by no means always, terminating (as is seen through the speculum) in a curved outline, with a prominence of the neck both before and behind it—the term *os tincæ*, or *tench's mouth*, has been applied to it; and the prominences just mentioned are called respectively the anterior and the posterior lip of the *os uteri*. Very often, however, these two lips are not to be distinguished; the *os* being an opening in the centre of the cervix, while the latter is equally prominent on all sides, or is less prominent behind than before, as is more frequently the case. After parturition, also, the aperture of the *os* becomes transverse. You must, therefore, have no definite preconceived notion of the precise form of a patient's *os uteri* and its immediate surroundings, more than you would have of her nose, or any other feature of her countenance. Whether there be disease or not, you have therefore to decide, in very many cases, otherwise than by a reference to the precise conformation of this part. Anatomical treatises give you what may be termed the typical conformation; but to which only a small minority very accurately correspond.

The canal of the cervix is lined by a membrane entirely different from that lining the uterine cavity. It is folded into an immense number of laminae, as Dr. Tyler Smith has demonstrated; the depressions between these offering a large secreting surface, which he terms an “open gland.” Its clear, viscid secretion partakes of the properties of mucus, has an alkaline reaction, and to the eye much resembles the white of an egg. Just within the *os uteri*, and around it also, tactile papillæ are developed in considerable numbers, to which the sensibility in most women, of this surface, is due. The cervical canal and uterine cavity are together $2\frac{1}{4}$ to $2\frac{3}{4}$ inches long.

Finally, the uterus consists, histologically, of three layers of non-striated muscular fibre, arranged as I have before explained. These constitute the whole mass of the organ, (both body and neck,) except the lining membranes already described, and the peritoneum, which invests the body and a part of the neck of the organ externally. Vessels and nerves are abundantly distributed to the uterus; but of these I need not here give a particular description. I should, however, call attention to the fact that the walls of the uterus are thin-

nest—and especially the anterior wall—at the junction of the body with the cervix; and therefore it is at this point that flexions of the organ occur.

The Fallopian tubes, or *oviducts*, are two muscular tubes prolonged from the two upper angles of the uterine cavity, as before described; are from 3 to 5 inches long, extending to the right and left ovary; having a calibre or *lumen* only $\frac{1}{30}$ th of an inch in diameter at their orifice, but terminating in a trumpet-shaped opening, with an irregularly-serrated border. One of these serratures is attached to the outer end of the ovary; and the latter is also attached to the uterus by a ligament composed mainly of muscular fibres, which thus reach out to it from the muscular layers of the uterus. Of the structure of the ovary it is not my present purpose to speak.

The two *round ligaments* are also two muscular arms, from 4 to 5 inches long, thrown out from the sides of the body of the uterus, each reaching down into the internal abdominal ring, passing through the inguinal canal, and terminating in the labia majora.

A fold of the peritoneum invests the uterus itself, and the appendages just mentioned—oviducts, ovaries, and the two sets of ligaments—both before and behind; and this fold, stretching completely across the pelvis, and inclosing these parts between its two layers, constitutes the *broad ligaments* of the uterus. They also contain some muscular fibres, extending between their two layers from the uterus.

On the other hand, the *vagina* may also be regarded as a prolongation of the uterus downward; it being essentially a muscular tube lined by a mucous membrane, and its muscular structure being continuous with that of the neck of the uterus. This tube is so curved as to constitute a part of the parturient canal, as I have before explained to you; its anterior wall being 4 to 5 inches, and the posterior 5 to 6 inches, long.* But its precise relations to the cervix uteri will be explained under the following head.*

II. What is the *natural position of the uterus*, and its relations to other parts and organs?

Placed between the two layers of peritoneum constituting its lateral ligaments, the uterus is situated in the adult female very nearly in the axis of the superior strait of the pelvis; its fundus rising to a point just below the level of its superior plane. Its position is, however, not precisely vertical; but it is slightly curved anteriorly—this

* For the full particulars respecting the histology of the uterus and its appendages, I refer to my work on "Human Histology," pp. 559-566.

curve corresponding with the axis of the parturient canal, as I have previously explained to you. Thus, the fundus of the uterus is about three-fourths of an inch in front of a vertical line touching the posterior surface of the neck; so that, seen in a side view of the bisected pelvis, it appears somewhat anteverted; or the fundus and body appear to have fallen forward. It is attached in front, by a fold of the peritoneum, to the posterior surface of the bladder; and behind, the same membrane, after covering it, extends 1 to $1\frac{1}{2}$ inch over the posterior wall of the vagina to Douglass' *cul-de-sac*.

The relations of the uterus to the latter canal are of great practical importance. Tracing the vagina from below, it passes about half way up the neck or cervix, and terminates by being inserted into and around the neck at that level. Thus, the lower half—or $\frac{1}{2}$ to $\frac{3}{4}$ inch—of the uterine neck will be found projecting into the upper extremity of the vagina—and this is called the vaginal portion of the vagina; while the remaining portion is above the vagina. The length and other dimensions, however, of the vaginal portion differ very much in different subjects.

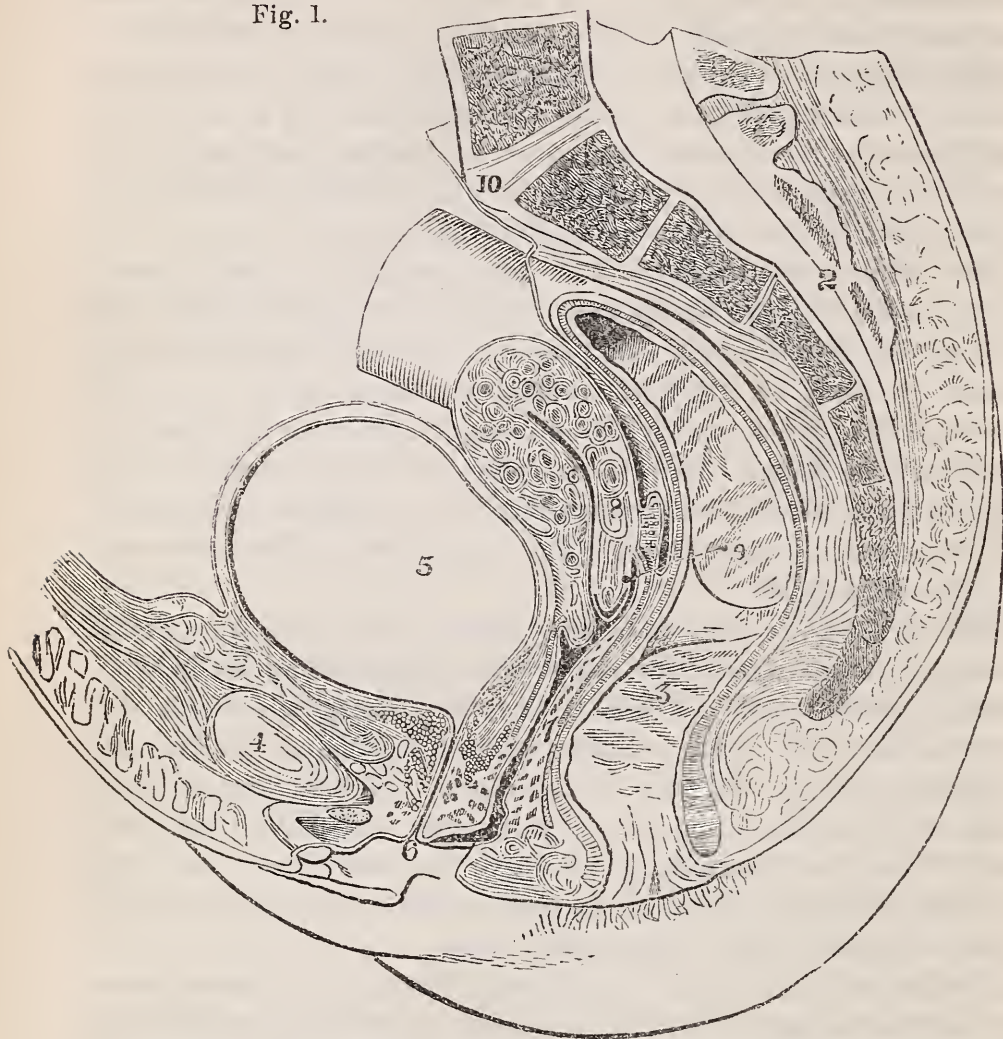
The os uteri (and cervix) is not, however, placed exactly *centrally* in the upper extremity of the vagina, but is somewhat farther in front than the precise centre. There is, therefore, less space between the anterior than between the posterior wall of the vagina, and the corresponding face of the neck of the uterus. Besides, the posterior wall of the vagina is attached higher on the neck than is the anterior. These two facts may be added to the one before mentioned, viz., the *concavity anteriorly* of the canal of the vagina, to account for the less length of the anterior vaginal wall.

Finally, the os uteri is about $3\frac{1}{2}$ inches (some say 4 inches) from the ostium vaginæ, in nulliparous women; or, if the vagina be very short, the distance may not be more than even 2 inches. It is therefore above, (at least an inch,) and not at all directly supported by, the levator ani muscle. And, as the rectum is in its normal state collapsed, except during the act of defecation, it normally exerts no indirect pressure on the cervix. The accompanying diagram illustrates the relations of the parts just described.

Such are the normal position and relations of the uterus, in the nulliparous woman. But I should add, that in many who have borne children, this organ has a considerable latitude in these respects; the position varying in various ways, within certain limits from the account I have given; though these variations may produce no symptoms, and require no treatment. Not seldom, the same uterus will

be found in a particular position at one examination, and in another a day or two subsequently.

Fig. 1.



Right half of bisected female pelvis, after Dr. Kolrausch; taken, by permission, from the American edition of Dr. T. Smith's Lectures on Obstetrics.

1, Right buttock; 2, sacrum; 3, rectum; 4, symphysis pubis; 5, bladder, crowding uterus somewhat backward; 6, urethra; 7, vagina; 8, uterus; 9, the Douglas *cul-de-sac*, between uterus and rectum; 10, articulation of sacrum with 5th lumbar vertebra.

III. How is the uterus maintained in the position which has just been specified?

1. The *direct* supports of the uterus are the broad, the round, and the utero-rectal ligaments.

The *broad* ligaments, already described, in their normal condition, keep the body of the uterus from falling directly forward, or directly backward or downward. Indeed, if they do not yield at all, they may serve to prevent displacement of the body of the uterus in any direction. But, as they stretch completely across the pelvis, and in-

close the uterine body in their central position only, it is evident that if they become relaxed or elongated by any cause, they so far cease to fulfill this function, and allow more or less displacement of the inclosed organ, in any and in all directions; and their tonicity will of course vary at different times, since they contain muscular fibres.

The *round* ligaments maintain the body of the uterus in its natural slightly anteverted position; or, in other words, they do not allow it to fall backward from that position. If stretched, or shortened, they of course fail proportionately to fulfill their precise office. They are also essentially muscular—containing some striated, but principally non-striated, fibres; and therefore vary in their contractile conditions.

The *utero-rectal* ligaments are mainly folds of peritoneum, extending backward from the sides of the womb to the rectum; and these ligaments prevent the lower part of the body and the upper part of the cervix from coming forward beyond a certain distance (about $1\frac{1}{2}$ inch) in front of the sacrum. They form the sides of the *cul-de-sac*, Fig. 1, 9.

The *cervix* of the uterus is also directly supported, as has been shown, by the posterior wall of the bladder, and by the vagina also, provided the latter maintains its position. It can, however, accomplish this, and support the cervix, only in virtue of its contractile power: *i. e.*, if, being a muscular tube, it contracts so firmly as not to allow the uterus to descend into it, (provided its other supports, before mentioned, allow it to descend,) it directly supports it; but if its contractile force is essentially diminished, it renders no such aid as has been ascribed to this canal, in preventing the descent of the uterus. On the other hand, in many cases in which the vagina has lost its tone, the other direct supports of the uterus are found sufficient to sustain it and its appendages, and the upper portion of the vagina also.

2. The uterus is also *indirectly* supported in its position by the rectum, the levator ani muscle, and the perineum. By this I mean to say, that if the direct supports of the uterus fail, these parts will arrest its tendency downward towards the os externum; or that, if these parts, on the other hand, lose their natural position or their force, the direct supports before mentioned may not alone be found sufficient to maintain the womb in position, and displacement, therefore, ensues. Thus, prolapsus uteri often occurs in consequence of prolapsus of the rectum, rupture of the perineum, or loss of tone of the levator ani. The important relations of this muscle in the female will be discussed in connection with prolapsus of the uterus.

IV. The *causes* of displacements of the uterus are therefore, in general, as follows:

1. Agencies which weaken the direct supports of the uterus. And since the latter are principally muscular in structure and in action, I may mention, under this head, general debility, (as in anæmia,) relaxation after delivery, and great efforts, even in the unmarried, especially during the monthly period.

2. Any agency enfeebling the indirect supports above mentioned. And here should be mentioned especially the effects of child-bearing in relaxing the levator ani, and the other parts included in this class.

3. Any cause increasing the *weight* of the uterus itself, and its appendages: *e. g.*, congestion, inflammation, hypertrophy, induration, scirrhus, fibrous tumors, or polypus of the uterus; moles, hydatids, and early pregnancy.

4. Pressure upon the uterus by displaced or enlarged contiguous organs, (bladder or rectum;) by tumors of the pelvis or abdomen, ascites, and ovarian disease.

V. The *symptoms* of the various displacements of the uterus are by no means so distinctive as is often supposed. Some, and often many, of the following symptoms are common to them all, and to several other uterine affections: A feeling of fullness in the pelvis; a bearing-down, a dragging, or an aching sensation in the umbilicus, hypogastrium, pelvis, loins, sacrum, nates, groins, or thighs; frequent or difficult micturition; constipation and tenesmus; a tenderness of the cervix uteri on pressure, especially of its posterior portion; and some derangement of menstruation, and a leucorrhœal discharge. Subsequently, also, the stomach becomes deranged, and the bowels inactive; the appetite diminishes, and the spirits are depressed. Not seldom, these latter symptoms occur without having been preceded by the former to any marked extent, and their true cause would hardly occur to one not familiar with this class of ailments. In such cases, the poor patient too often receives but little sympathy from her friends, and perhaps from her husband, even; being regarded as merely nervous, hysterical, or hypochondriacal—terms which, in common parlance, are used to cover cases which are supposed to have no cause but in the imagination, and which are assumed to be attended by none but imaginary suffering. But if any person more than any other deserves, and also actually needs, sympathy, it is a woman who thus suffers from a cause unsuspected by herself, or knowing which, she must still conceal it from those around her.

We can therefore very seldom decide with any degree of assurance, in any given case, from the rational signs merely, that any particular displacement exists rather than another; or, indeed, that we have a case of displacement, rather than of inflammation or ulceration, or

some other affection still, of the uterus. We can obtain a correct diagnosis with certainty, only by means of an internal examination; and to this topic we next devote our attention. To the *rational* signs I shall therefore give but little prominence, when I come to speak of these displacements in detail.

VI. Uterine diseases are, at the present day, diagnosticated, as you are aware, mainly by the touch, the speculum, and the uterine sound.

The *speculum* is invaluable, in its proper use; but it has no place in the diagnosis of mere displacements of the uterus. I have explained its value in the diagnosis and treatment of certain other affections; and which I could not conscientiously treat, at the present day, without its aid. But it should be a rule never to use it unless absolutely necessary; and therefore I have no more to say of this instrument in connection with my present subject.

But the *uterine sound*, invented a few years since by Prof. Simpson, of Edinburgh, here finds its appropriate sphere. Indeed, there are many cases of deviation from the normal position of the uterus which cannot possibly be recognized without it. In all doubtful cases, therefore, the sound should be used; but with this proviso—*it is never to be used in any case, unless we previously assure ourselves, from positive reasons and testimony, that the patient is not pregnant.*

Some very frightful stories have been told of the danger to the female from passing a sound into the uterus; but you have seen the operation so often performed at the clinique with entirely negative results, so far as any sense of injury is concerned, that you will hardly credit them. It is not to be denied, however, that there is sometimes a degree of hyperæsthesia of the uterine lining membrane which renders the introduction of the sound exceedingly painful; and in a single instance, you will recollect that a patient nearly fainted from the pain and shock, but very soon rallied, and walked home without any difficulty. The simplest operation sometimes produces unusual and unexpected results. The passage of a bougie into the bladder of a male has been known to produce even a fatal shock. Still, no one hesitates to perform that operation in circumstances requiring it. I should say that, generally, the uterine sound produces far less suffering, and subsequent irritation, than the vesical catheter; and I have never in a single instance witnessed any serious symptoms after its use which I could attribute to it alone. Of course much harm can be done with it, if guided by a reckless head and hand; and the utmost delicacy in its application is essential.

Of the *touch* I need only say, it is also indispensable to the diag-

nosis of these displacements. It is usually performed by the index finger alone, and in a manner with which you have been made familiar. There is an advantage in habitually applying it with the same index finger, whether the right or the left, as the sense becomes thus more highly developed and educated for such purposes. I have found much advantage from using the left forefinger for delicacy of touch, and the right in all cases requiring the exertion of strength.

VII. Further, I have a word to say on the *prognosis* of uterine displacements. Those who have had much experience in their treatment will not be too sanguine of a complete cure in most cases, unless the patient can be kept in the most favorable circumstances, and for a sufficient length of time; and this is, in a majority of cases in private practice, quite impossible. We can, however, almost always expect to secure much alleviation of the symptoms, and very often expect to remove them entirely. But we can in no case guarantee exemption from a relapse, if a complete cure is effected; since the same causes may reproduce the disease, and especially in the married.

Do not understand me to underrate the benefits of appropriate treatment in the displacements under consideration; for I could not mention another department of medical practice in which so much suffering is removed as by their appropriate management. I only wish to caution you against that enthusiasm which often, in a young or an ignorant practitioner, would promise a complete cure in circumstances or in cases which admit only of more or less relief. The more we have to do with this class of cases, the more sanguine shall we be of affording vast relief, and the less of a complete and permanent recovery. You will therefore not, I trust, adopt the custom of some who promise a cure for a certain sum of money paid in advance.

Of the treatment calculated to insure the best results, I will speak in connection with each particular displacement.

The Power of the Iodide of Potassium in Expediting Mercurial Salivation. By BERNARD KELLY, M.D., Physician to the New York Dispensary.

Most physicians, in extensive practice, must have from time to time observed that there are many patients, who, from some unknown idiosyncrasy, obstinately resist the action of mercury for a long-protracted period, or even indefinitely. Hence the various expedients adopted by them for the purpose of bringing the refractory system under its

influence. Some employ the endermic and iatroleptic modes; some fumigations; and others, the introduction of blue ointment within the rectum. These several methods rarely fail when tried separately, or in succession. All of them, however, are attended with no inconsiderable amount of labor, loss of time, and indelicate exposure, which last (in case of females being subjects of treatment) involves no trivial obstacle to their indiscriminate employment.

We have never failed to produce the specific action of mercury, in a remarkably short space of time, by the simultaneous use of large doses of the iodide of potassium. This method possesses many peculiar advantages over those already mentioned. In the first place, it is expeditious and quite manageable, incurring neither unnecessary labor nor exposure; and secondly, the salivation induced by their combined action is fully as efficacious as that produced by mercury alone; with the additional advantage, that the ptyalism, brought on by the assistance of the iodide, is always milder; never producing the horrible fœtor and sloughing so characteristic of the former agent, and usually subsides within the space of a few days. These considerations are very important, in a practical point of view, when nothing short of salivation is to be relied upon in the treatment of a grave disease; or when our patient, as it often happens, is an aged or debilitated subject, or one in whom the depressing effects of mercury are to be cautiously guarded against. By this means we can graduate, as it were, the precise amount of ptyalism to be induced in any given case; and also, when the urgency of the symptoms demands a prompt and decided action, greatly diminish the length of time necessary to bring about the desired result.

In treating infantile diseases, both substances should never, in our opinion, be given simultaneously. We remember one case, in particular, where a dangerous salivation, which all but terminated fatally, had been induced by a few doses of calomel, a solution of the iodide of potassium being administered at the same time. The little patient had been suffering from an acute attack of meningitis, but ultimately recovered from the complication of both affections—thanks to the fortunate services rendered by the internal and topical employment of quinine and the chlorate of potash. The *nimia cura medici*, which is always a source of error to the practitioner, and mischief, if not death, to his patients, becomes doubly so when active agents are blindly pressed, through an overweening solicitude to heal. The well-known difficulty of inducing salivation in the child by the ordinary means, lends additional testimony, through the example cited, of the facility

with which mercury exerts its specific action upon the human system, when aided by its great rival and frequent substitute—the iodide of potassium.

This fact, as far as we are aware, has not been broached, as yet, by any of our professional brethren; and, therefore, we shall feel amply gratified should its knowledge prove an effectual means to check the rapid course of a formidable disease; or serve as a beacon to warn them in time of the shoals and quicksands on which, unconsciously, they may happen to be rushing.

Notes and Sketches preparatory to a Treatise on Diseases of the Tropics.

By G. VAN ARCKEN, M.D., Bogota, New Grenada. (Continuation and conclusion, from p. 52, Nov. No., 1859.

Prostatitis.—Chronic inflammation of the prostate gland, as a consequence of neglected or ill-treated gonorrhœa, is a very common disease in the tropics. As it mostly happens in old and debilitated subjects, much benefit may be derived from tincture of bark, with small doses of bi-chloride of mercury or of iodide of potassium.

If the disease partakes more of an acute character, the warm hip-bath, fomentations, poultices and leeches, do great good.

In some extreme cases, where the urine is passed with great difficulty, and dilatation by bougies has been found impracticable, cauterization, by means of a small quantity of nitrate of silver, either in powder or in ointment, may be resorted to, and repeated according to circumstances.

A liberal diet should be allowed in all these cases, and an occasional tonic infusion or tincture given.

Syphilis.—In all the history of mankind, there never was a more shameful untruth told, a more grievous wrong committed, than when some medical humbug raised the story of the American origin of the venereal disease, which, they say, was first imported from the New World by the crews of Columbus. I have often wondered how men of high standing in the medical world could possibly countenance such a gross absurdity.

Wherever prostitution is restricted to a few women among a crowd of men, there various classes of foul diseases must be generated.

The vaginal secretions of many a healthy woman will sometimes produce either a gonorrhœa, balanitis, or even slight ulcers, especially

in those persons the mucous membrane of whose genitals is so delicate as to be affected by the slightest resistance which the vagina may offer to the entrance of the male organ. But these cases are easily distinguished by their benignity; a strict attention to cleanliness, rest, and a slightly astringent lotion, being sufficient to effect a cure.

In hot countries, where people are always more or less lasciviously inclined, a slight urethral discharge may be brought on by venereal excesses, which may afterwards be converted into gonorrhœa by intercourse with a woman, who, although chaste, suffers from some slight vaginal discharge.

At any rate, I consider it my duty to take a decided stand against the pretended American origin of venereal diseases, simply because, in all my travels in North, Central, and South America, I have always found the pure Indian breed a remarkably healthy race, entirely free from syphilis; while, on the contrary, the mixed races are a continual prey to it.

As I have already remarked, the treatment of primary syphilis is much more easy in hot than in cold countries. Within the first fourteen days, an occasional dose of calomel and jalap, followed by epsom salts, and emollient applications to the ulcer, is all that is required. If the disease is of longer standing, and the edges of the ulcer already hard and callous, the mildest mercurial preparation, hydrargyr. c. creta, may be given in two-grain doses, every night, for ten or twelve days. There is hardly ever any difficulty in curing the ulcers, and, as a general thing, the soothing applications bring about the desired effect much more promptly than caustics.

With regard to secondary and tertiary syphilis, although it is true that in some constitutions the corrosive sublimate, in tincture of bark, will act like a charm, still my general experience has gone against mercurials, and I now consider them, in this peculiar class of diseases, to say the least of them, very fallacious remedies.

Most of these cases can be completely cured by a purgative regimen, continued with intervals for four or six weeks; and if afterwards any lingering disposition remains behind, the best remedy I know of is Fowler's Solution, in ten-drop doses, twice daily for a few weeks.

Formerly I had great faith in the vegetable remedies, so extolled against this disease by some practitioners, especially sarsaparilla, guaiacum, quassia amara, and sassafras; but after having given them a fair trial in several cases, where mercury and iodine were not admis-

sible, I found them to be nothing but trash, on which money and time were thrown away.

The arsenic has failed only twice in my hands, and in those two cases I effected a cure by tincture of tartrate of iron and potash, in twenty-drop doses, three times daily for about six weeks, the drops being taken in a spoonful of old Hock.

Cystitis.—The acute and the chronic form of this disease form, with regard to frequency, the most complete contrast. The acute, very rare indeed, has but twice come to my notice; the treatment does not differ materially from that pursued in colder latitudes.

The chronic form is of so frequent occurrence, that hardly a day passes without my being consulted about some form or other of this most fatal disease. I say most fatal disease, because the patients have seldom sufficient endurance to remain in the charge of a physician until a complete cure is effected; and being only partially relieved, the first cold or wetting of the feet is sufficient to bring on a new and aggravated attack. This happens over and over again, and at length the patient, worn out by want of sleep, agony and hectic, dies a most wretched death.

I take it for granted that all my readers know how to mark the exact diagnosis of a chronic or latent inflammation of the mucous membrane of the bladder.

The first attack of this disease is but rarely characterized by grave symptoms, and frequently it commences so insidiously that only by some accident the patient discovers a cloudy state of the urine, which alarms him.

For this I prescribe, first an infusion of senna, with salts, and afterwards, every night and morning, a Seidlitz powder. This, together with an occasional tepid bath, and a vegetable diet, is sufficient to effect a cure in from 15 to 20 days.

Let us suppose now that the patient, seeing himself relieved at the end of eight days, thinks, as so many do under similar circumstances, himself cured, and goes to work again.

A few months afterwards he gets by chance a severe wetting, and on the next day he feels a strange sensation on voiding his urine; that is to say, the moment he commences to pass it, a strange sensation creeps over him, which gradually increases, until it amounts to a positive deep-seated pain in the bladder. The same medicines and diet are again taken hold of, and at the end of four weeks the patient goes to work again, being directed to take, for at least six weeks, three times daily, ten drops of the muriated tincture of iron.

But as this medicine is not very agreeable to take, after using it two or three days, in a fit of rage, he pitches it out of the window.

Still, he never feels himself entirely well, and on certain days an aversion to walk or move comes over him, which gradually increases, until, according to his own saying, he is too lazy to get out of bed.

Matters now grow rapidly worse; in the urine there appears a thick, muco-purulent deposit, and occasionally the whole is tinged with blood.

Extract of uva ursi, buchu, catechu, and opium are now prescribed, and after a partial re-establishment has been effected, the muriated tincture of iron is taken up again.

Perhaps the patient goes on improving for some time, but sooner or later a new symptom appears, which rather annoys him, to wit: he cannot retain his urine longer than one hour at furthest. The pain after passing urine becomes worse; and now, when the first drops of it pass the urethra, it scalds like fire.

Venetian turpentine, balsam of Peru, and other remedies of a similar nature, are now employed; at first they produce a temporary relief, and then the disease continues its course. At length the attending physician sees the uselessness of all internal remedies, and proposes injections into the bladder. If the patient be a male—good; but if a female, their universal answer is, Rather die! And die they do, soon after, of exhaustion, want of sleep, and hectic.

The remedies for injections are those used for diseases of the urethra.

I generally commence with barley-water, then diluted liq. plumb. acetat., and go then over to sulphate of zinc and nitrate of silver. In those cases where injections are resorted to at the right time, a permanent cure is sometimes effected; but those cases are the exception; the rule is death in from two to four years' time from the first attack of the disease.

On Fevers in general.—It has been truly said that America is the home of fevers of every possible description; and if both the polar extremities are comparatively free from them, so much more do they abound in the tropics.

No disease whatever, the slightest ailment, a toothache, for instance, let it continue for a week, and soon the experienced physician will see the pain become periodical, and assume in a few days more the type of an irregular intermittent fever.

It is this which mostly astonishes newly-arrived physicians, for their general opinion is, that all practitioners become here empirics; while, on the contrary, it is experience which teaches us to employ quinine in

a great many cases "*for which it is not recommended in the books.*" Quinine is the great remedy of America; but it is a remedy that few know how to give with advantage. As my space is limited, I must abstain from giving my opinions about its uses and manner of employing it, except in cases of genuine fevers, where I shall state my manner of administering it in a few words.

Intermittent Fever.—As in all other countries, this is the kind of fever which most frequently occurs. It is remarkable only for its obstinacy; in the majority of cases, quinine in scruple doses will break it up; the same remedy must afterwards be continued, partly to prevent a relapse, partly to assist nature in performing the necessary amount of repair. Three grains every night and morning are sufficient for this purpose; but it must be continued at least three weeks.

In cases of several months' standing, although quinine will break the fever up, alone it is seldom able to cure it. In those cases, I prefer the new preparation, called Chinoidine, of which I give, twice daily, three grains, with an equal quantity of quinine. I continue this for about six weeks, suspending its use once every fourteen days, for the purpose of giving a strong dose of epsom salts. After this, I let the patient take, for some three or four weeks, daily, six grains of ammoniate of iron, to correct any obstruction in the portal system; and should the spleen be enlarged, employ iodide of lead externally.

It is but seldom that the plan proposed above has failed me, and in those few cases, Fowler's Solution, in ten-drop doses, continued for several months, effected a cure; still, I do not like to employ it, for it mostly deranges digestion to a considerable extent, a very disagreeable attendant in cases of fever.

Congestive Fever.—Formerly, I thought there was nothing like the congestive fever of New Orleans and the surrounding countries, but my travels on the plains of Venezuela have convinced me that the latter country decidedly deserves the not very enviable reputation of being the home of fevers; congestive fever foremost.

In the States, very few cases die in the second chill, most of them in the third. In the plains of Venezuela most all die in the first chill, and but few survive to sink under the first blow of the second.

It may be asked, What can a physician do against so terrible a disease? That is the same question which I asked myself and my confrères, when first arriving in that woe-begotten country. My confrères answered me with a shrug of the shoulders.

Still, I did not despair, and if I could not save all my patients, at least I have saved the majority of them.

This is my plan of treatment:

The disease being of so fatal a nature, my chief aim is to economize time, and to bring about an ample reaction without delay. For this purpose, I take a spoonful of mustard, common salt, or some ipecac, put it in a tumbler of tepid water, and make the patient take it. Ten minutes after that, I commence slowly to roll the patient from side to side, and if this does not cause him to vomit pretty soon, then—*ultima ratio*—I push two fingers down his throat.

This is followed immediately by copious vomiting, which must be encouraged by plenty of tepid water, with some salt in it.

The effect of a vomit at such a critical moment is to make the fever jump from the first state to the third, entirely superseding the second. Directly after the vomiting has ceased, the patient commences to transpire most copiously; and, as soon as this shows the slightest tendency to stop, then is the time to give quinine.

The vomitive mostly leaves the stomach in rather a tender state, which makes it impossible to give any medicine internally; for that reason I dissolve, say half an ounce of pure quinine in four ounces of sulphuric ether, and to facilitate the dissolving, add half an ounce of liquor ammoniæ. One-half of this solution is rubbed in on the abdomen and under the arm-pits of the patient; the same is repeated with the remaining half about six hours afterwards.

This is all the treatment that is required. In some few cases there comes on, the second or third day afterwards, a trifling chill; but if, on the day after the first attack, there be no quininism, a scruple of quinine should be taken in some strong coffee, and the dose repeated six hours afterwards; and if due attention is paid to this, there is no danger whatever of relapse. Let nobody be scared at the tremendous dose employed externally; I lost several patients before I became bold enough to use it, thinking that one or two drachms were sufficient.

Yellow Fever.—I refer my readers to the May number of the MONTHLY, for 1858, in which they will find a description of my experience in this disease during my stay at Port-au-Prince; I have nothing to add to the treatment which I have minutely described in the article alluded to.

Typhoid Fever.—About this disease, so frequent in the tropics, I have nothing new or important to say, except to detail my method of giving quinine.

It is a fact known to every practitioner, that in no disease is there such a diversity of opinion with regard to the employment of quinine,

as in this. I am not vain enough to flatter myself with the idea of having discovered the cause of this diversity of opinion, based, of course, upon different results; but I can state, that since I have adopted my present plan, not one-fourth of my patients suffering from this disease have been over one week in bed. My plan is as follows:

In all fevers of a typhoid character, the functions of the alimentary canal, and of the skin, are, from the beginning, entirely prostrated. This is the reason why no remedy, especially quinine, whether given internally or externally, can produce its effect, for not a particle of it enters the circulation.

My plan of treatment, then, is to rouse both to increased action.

On the first day, I give the following:

R.—Sulphatis magnesiae,	℥ij.
Tartari emetici,	grs. viij.
Aquæ fontan.,	℥vij.

M. et solve.

S.—Give two table-spoonfuls every fifteen minutes, until copious vomiting has taken place; after that, repeat the same dose only every two hours.

The second and third day I give:

R.—Decoct. seminis hordei,	℥vij.
Vini tartari emetici,	℥j.
Liq. ammon. anisat.,	℥ij.
Syrup. cort. aurant.,	℥j.

M.

S.—A wine-glassful every hour.

Under the use of these remedies, the stomach and bowels are effectually cleaned out, and the edges of the tongue, formerly covered with a thick, white fur, get rather red, and the skin, from being hot and dry, has become soft and moist.

The next morning, that is, on the fourth day, is my time of election for giving quinine, the patient being now what I call properly prepared for its action.

I give a scruple of it internally, in a little strong coffee, which makes it sit better on the stomach. At the same time, I dissolve one drachm in one ounce of sulphuric ether, adding one fluid drachm of liquor ammoniæ. This must be rubbed in on the abdomen and under the arm-pits.

If, on the next morning, there be quininism, good; if not, I give another scruple internally.

After this, I let my patient have plenty of good broth, and three days afterwards he is up and about.

Bilious Fever.—The treatment against this disease has nothing to

distinguish it from the way my confrères on the shores of the Mississippi handle this enemy of humanity.

I make it a rule to give an alterative mercurial pill every three or four days, for at least six weeks after an attack of bilious fever; for experience has shown me that it is almost always accompanied with more or less inflammatory action in the liver, and a subsequent qualitative and quantitative abnormality in the functions of the hepatic secretion.

In cases where no attention is paid to this precaution, the fever is sure to return, or bring about a chronic hepatitis.

Acclimatization Fever.—The letter which I directed a short time ago to the editors of this Journal, and is published in the May number of the MONTHLY for 1859, explains my views on this particular kind of fever.

Hepatitis.—This is undoubtedly the disease which most frequently occurs in the tropics. The elevated temperature acts as a direct stimulus to the liver, and predisposes it to inflammatory action.

Acute hepatitis is rarely a fatal disease. Chronic hepatitis, on the contrary, is but seldom radically cured; the most prominent and troublesome symptoms may disappear for a time; still, sooner or later, they return with renewed strength, and at last the patient sinks, unless, indeed, he be carried off by an intercurrent disease; a thing which often enough happens.

The reason why hepatitis is so rarely radically cured is the horror in which the natives keep anything related with medicine. As soon as the most grave symptoms have disappeared, they fancy themselves cured, and refuse to take any more medicine.

A second, and by no means unimportant cause, is the entirely out-of-the-way treatment pursued by natives, and by most of the foreign practitioners in this country.

The natives, with their limited medical education, are almost all of them followers of the new French school; they let the time pass with insignificant tisanes and other medicines, which cannot hurt a baby, but make no impression whatever on the disease. Mercury, even when given in small alterative doses, is a horror to them.

The foreign physicians, on the contrary, being most of them "*irregular graduates of nature's school of experience*," fall into the opposite extreme, of giving mercury in abusive doses. This is especially the case with Englishmen, who know of nothing else than their eternal blue pill.

Now, if it is difficult to cure a case of hepatitis without mercury,

when this remedy is abused, a cure is entirely out of question; and in many a case do I believe that the curative powers of nature have been paralyzed, and the disease gone on to a fatal termination, just because of the brainless administration of mercury.

In cases of acute hepatitis, after the antiphlogistic regimen has put aside the most dangerous symptoms, calomel in one-grain doses, repeated every two or three days, should be resorted to. Of course it must be suspended as soon as the gums commence to get sore, for profuse salivation is decidedly injurious.

The intermediate time may be usefully employed with giving laxatives, acid mixtures, and making use of repeated blisters.

This, together with a suitable diet and an occasional tepid bath, is sufficient to effect a cure in nine cases out of ten.

Chronic hepatitis needs pretty much the same treatment, only mercury should be given more sparingly, and frequent recourse had to drastic purges.

A remedy, the use of which has of late fallen into undeserved discredit, is the muriate of ammonia. It well deserves a fair trial in all cases where mercury is inadmissible, because suppuration has already taken place. It appears to act as an alterative, gently stimulating the excretory power of the liver; at any rate, under its protracted use, and alternate drastic purges, I have frequently observed most difficult cases of chronic hepatitis to improve so much, that no physical sign could enable me to detect any tenderness or increase of size in the liver.

Externally, the hip-bath, with nitro-muriatic acid, and the long-continued use of a plaster composed of gum-ammoniac and mercury, will mostly be productive of much good. Counter-irritation, by blistering, tartarized antimony, and setons, has been much lauded by some practitioners, although I think that the good they do is more than counterbalanced by the annoyance they create. If the patient wants to try them, good; but I never propose them of myself.

Carate.—This name is given to a new and quite peculiar disease of the skin, which is endemic on the shores of the rivers Magdalena, Cauco, Atrato, Quilo, Catatumbo, Apure, Meta, and Orinoco; all of them traversing the northern part of the South American Continent.

I refer my readers to the April number of the MONTHLY for 1858, in which they will find a detailed description of this disease.

Pemphigus.—Pemphigus, or Pompholyx benignus, as Willan calls it, is in the tropics by no means so trivial a disease as in colder latitudes. The classification of it into chronic and acute is quite useless

here; for all cases of it commence with acute symptoms, which gradually take the chronic form. In fact, I am almost inclined to think that this disease is only curable after it has passed from the acute to the chronic form.

If called to a case of acute pemphigus, I limit myself to giving some strong purges, and after that try to bring about a gentle diaphoresis. If the eruption is rather tardy in making its appearance, I order one or two baths with sulphuret of potass, or some frictions with any irritating substance. As soon as the eruption is fairly out, every trace of fever leaves, and the chronic state of pemphigus commences.

The specific against pemphigus, and almost any disease of the skin, is corrosive sublimate; and if this remedy has not been equally successful in all hands, that may in part depend upon the manner in which it is administered.

In this country, and the tropics in general, it is almost impossible to find a family entirely exempt from syphilitic taint. Having such a foundation, it is not at all strange that pemphigus should frequently be accompanied by tertiary symptoms; all of which, together with the original disease, soon give way under the use of sublimate. My favorite way of using it is the following: I order a solution to be made, containing about five grains of it to every ounce of water. With this all the pustules that are not yet ripe are to be rubbed, until the skin becomes quite red; this causes them to abort. Those that are already filled with water or pus should have their cuticle removed by one sweep with a pair of sharp scissors; the liquid will then escape, and the bottom of the bullæ should be wetted with the solution.

This entirely external plan of treatment will still sometimes produce salivation; of course, the use of the solution should be immediately suspended, and not taken up again until the mouth is well. It seldom requires longer than a fortnight to cure a most inveterate case of pemphigus after this manner of treatment.

Spinal Irritation.—Under this term I understand any morbidly-increased sensibility of the medulla spinalis, either entire or of a part of it, characterized by tenderness, upon pressure, of one or more of the spinous processes of the vertebræ.

The symptoms of this disease are immensely diversified; much more so in the tropics than in colder climates; and frequently appear to have so little connection with the medulla, as to be misunderstood for a long time, to the great injury of the patient.

Already several times have I been called to patients who have been

for a long time under treatment for asthma, hepatitis, disease of the kidneys or bladder, when, after a thorough examination, I had no difficulty in tracing the disease to the medulla spinalis.

Diseases of this kind are so frequent, that I am in the habit of running my hand over the whole column of spinous processes, as soon as I find the least difficulty in making my diagnosis in some pretended disease of the thoracic or abdominal viscera, and most generally do I find a tender vertebra.

A pathognomonic symptom of great value, but which has never yet been brought forward in its true light, is that highly changeable state of the urine—being now perfectly clear and limpid, having to-morrow a brick-dust deposit, on the day following a fatty coat on the top, and on the next day being quite clear again.

Whenever I find this state of the urine, although my first and second examinations detect no tender vertebra, I still commence my usual treatment for spinal irritation, and sooner or later, either by accident, or as a natural course of the disease, the tender spot is discovered, which need not be the spinous process, although in the majority of cases it is.

My treatment in this disease is very simple: drastic purges, when occasion requires it; mercury in small alterative doses, say one grain of calomel every three or four days; counter-irritation of all kinds; and opium, to allay pain.

After the most grave symptoms have disappeared under this treatment, then the exhibition of the tartrate of iron and potash will do the rest. Of all the iron preparations, this is my favorite, because it neither heats nor constipates, as all the others do, nor has it got the horrible inky taste of most of them.

This disease is sometimes complicated with gout or rheumatism, with which it may be easily confounded by practitioners of little experience.

Whenever such a complication exists, an occasional dose of iodide of potassium should be given in colchicum wine, and continued until the spinal disease has been brought back to its origin.

As a general rule, sulphurous baths, followed by frictions with some warm aromatic spirits, are highly beneficial in all cases of spinal irritation.

Uterine Polypus treated by Injections of the Perchloride of Iron. By J. N. GRAHAM, M.D., Chicago, Ill.

We notice in the November number of the *AMERICAN MEDICAL MONTHLY* an extract of a note from a previous number of the *Chicago Medical Journal*, entitled, "Nasal Polypus—New Treatment," and speaking of the effects of the injection of the muriated tincture of iron in cases of nasal polypi, and also of the possibility of its good results "in other localities less accessible to removal."

The note referred to put us in mind of a case of uterine polypus which came under our care in 1857, a brief account of which we take from our note-book, as follows:

June 20th, 1857, called to see Mrs. B.; found her very low and reduced by profuse hæmorrhage, occurring about the time, as she supposed, "of what ought to be the return of her regular monthly visitations." Previous to this, she had been very irregular in her menses, and "supposed it to be about the turn of life with her." She says the hæmorrhage has been very considerable; she is feeble, and depressed in spirits; pulse small, frequent, and tremulous; tongue covered with an ashy-white coat.

Put her upon an energetic course of treatment—tonics and astringents, with astringent injections, such as acetate of lead, tannin, sulph. zinc, &c. During the treatment we often introduced into the vaginal portions of solid ice; also, bits of alum, enveloped in lint, were introduced into the os uteri. Notwithstanding this course of treatment, she continued, with but occasional and partial respite from the hæmorrhage, for between five and six days after we first saw her.

Becoming convinced that there must be some cause at the bottom of all this, other than the supposed "change of life," which, as yet, we had not ascertained, we made as thorough an uterine examination as the condition of the uterus would allow, and detected a soft, fleshy substance—pendulous, apparently, from the fundus uteri. As the neck of the uterus remained rigid, and further dilatation was not practicable, ergot was given in small, repeated doses, as well to arrest the bleeding, as to expel, if possible, what seemed to be the cause of the trouble. Having continued the ergot for some ten or fourteen hours, with ice and astringent injections, and the hæmorrhage continuing—sometimes, after a partial cessation, returning in alarming quantities—all our previous efforts to arrest it having failed, we injected the muriated tincture of iron, diluted in one-third mucilage gum-arabic, into the os—continuing the opium, tonic mixture, and ergot during the night.

June 25th, A. M.—Found the patient more comfortable—the os so dilated that we introduced the hand into the uterus sufficient to enable us to remove several small pieces of semi-consistent, hepatized flocculi, with some well-defined fibrinous substance, resembling, in part of its formation, the sirloin portion of beef, and quite strongly attached to the fundus of the uterus—somewhat larger in its body than a hen's egg, with a vermiform portion extending downward.

The dilatable condition of the uterus at this time, and the ease with which we grasped the tumor, enabled us to remove it without the use of instruments.

During the removal of this body there was considerable hæmorrhage, which was soon arrested by cold injections of alum-water.

It may seem to some that a solution so strong of muriat. tinct. ferri was rather a harsh application, and uncalled for under the premises. The *urgency* of the case, and the failure of the previous treatment to arrest the discharge, prompted us to resort to this treatment. And then even with the tinct. ferri mur., in its full strength, we are of the opinion that the lubricating secretion, thrown out from the mouth of the uterus, would soon form a shield around even this escharotic and prevent injury to the parts.

We are not aware that the muriated tincture of iron has been used in like cases, nor are we conscious of having been prompted to its use here from any other source than a knowledge of the nature of the medicine, and a previous failure to arrest, by any other means, the hæmorrhage that had threatened the life of our patient. Judging from our experience in this case, we should have no hesitancy in using the tinct. ferri, in cases of severe uterine hæmorrhage, either injected through the os or applied by sponge or lint. If, as in the case referred to in the *AMERICAN MEDICAL MONTHLY*, the iron was borne with impunity, injected against the delicate and sensitive nasal membrane, surely it would be tolerated by the much less sensitive uterus.

It will be remembered that, in the above report, though the ergot had been used for ten or more hours, in connection with the previous applications, the bleeding was not stopped, nor could the polypus be reached or removed.

We think the iron acted a favorable part in astringing or cauterizing the relaxed mouths of the bleeding vessels, and separating the attachments of the fungus. The patient rapidly recovered after this.

We report the above, hoping that, if based upon correct principles, the use of this agent, in like critical cases, adapted to the circumstances of the case, may prove useful in the hands of others.

While we would discard the reckless or indiscriminate use of caustics or escharotics, we are of the opinion that their application to the uterus is not fraught with that danger that by many has been supposed, nature throwing out a secretion (lubricating) that liquefies or envelops even the solid nitrate of silver, thus preventing it from further invasion.

Chloro-Anæmia treated with Bean of Saint Ignatius. By DR. EISENMANN, of Würzburg.

Chlorosis is a disease developing itself particularly in medical constitutions, predisposed to nervous affections. It prefers the sex which has the marked predisposition for neuroses, and develops itself at the period of life when all kinds of neuroses are very frequent. Its *début* is marked by the appearance of nervous phenomena, whilst the blood presents not the least alteration, and during its entire persistence numerous nervous phenomena are observed. Any particular alteration of the blood may be wanting, even in cases where the disease is completely developed. It is cured by the use of therapeutic means that exercise a special action on the spinal cord. These considerations authorize me, even force me, to conclude that chlorosis is primarily a nervous affection, and that the alteration of the blood is only a secondary phenomenon, resulting from morbid innervation.

This mode of considering the nature of chloro-anæmia is not an idle theory. It is practically useful, since it leads to the discovery of substances which shall have special curative properties in this disease. I select among these such as contain strychnia and brucia. The first patient on whom I employed this treatment was a strong, robust woman, the wife of a miller, aged about thirty, who said she had chlorosis for eight years, and who had been treated by all the physicians of the neighborhood, without any permanent result. She presented all the symptoms of chloro-anæmia, together with œdema of the lower extremities, and also a somewhat considerable effusion in the abdominal cavity. I gave her, twice a day, from 10 to 15 drops of the tincture of the St. Ignatius bean. Under the sole influence of this medicament all the morbid phenomena, including the œdema of the legs and the abdominal effusion, disappeared in eight weeks.

Soon after I was called to see two young girls, 15½ and 16 years of age. They were frail and delicate; their complexion was florid, clear, and very delicate; all the symptoms announced that they were affected with chloro-anæmia. A physician, previously consulted, had prescribed ferruginous preparations, until the very sensitive stomachs of the patients could no longer bear them. I

gave them, twice a day, six drops of tincture of St. Ignatius beans, recommending an increase of the dose one drop every three days. At the end of four weeks they were cured; it is true that, in their case, the disease had not made any considerable progress. In some other cases I employed the same agent; and my friend, Dr. Seligsberg, at Kronach, has also experimented with it, and our experiments have fully satisfied our expectations. Being thus convinced of the curative powers of the bean of St. Ignatius in chlorosis, I desired to see if, associated with ferruginous preparations, it would not produce a cure more speedily than when employed alone; and as, in most cases, there is also an obstinate constipation, I added rhubarb to the two substances. The following is my formula:

R.—Pulv. Fab. Sanct. Ignatii,	gramme 0.06
Ferri Lact.,	“ 0.18
Pulv. Rhei,	“ 0.18
Misce.	

Take two powders a day; with this, nutrition and tonic regimen, and exercise in open air. This treatment has always succeeded with me since 1846, except a case in 1852, which proved rebellious under all treatments. In cases where the digestive organs will not bear the iron, I begin by administering the Ignatia alone, and only add the lactate of iron, and afterwards iron in substance, and rhubarb when the sensitiveness has passed away. My formula is so much the more useful, since it overcomes the obstinate constipation which so often accompanies chloro-anæmia. All my friends who have used this treatment in their practice, have noticed that they produced cures much more rapidly than with iron preparations alone, and have found it efficacious when these have failed.—*Bulletin de Thérapeutique.* L. H. S.

The Effect of Solar Light on Vegetable and Animal Fæcula, &c. By NIEPCE DE SAINT VICTOR and LUCIEN CORVISART.

1. Solar light, by an action peculiar to itself, modifies and transforms certain amylaceous substances and some of their derivatives.

2. This action alone, when prolonged, is capable of transforming a solution of pure starch into dextrine and sugar. But at first light modifies entirely the nature of starch, converting it into a substance resembling inuline, as obtained from the alder, colchicum, &c., in which condition it is, while cold, entirely insensible to the action of iodine, but which differs from inuline, since it will not reduce the salts of copper and silver in the presence of ammonia. It does not

alter the plane of polarization. This change may be effected in six hours of good exposure, during the months of July and August; but oftener twelve or eighteen hours of exposure are required to produce the complete change. A solution of starch, containing half a thousandth, although exposed in the same place at the same time, and with the same temperature, if protected by a dark covering, will undergo no change, so that a few drops of the latter solution would produce a deep blue in a mixture of the former and iodine.

3. This transforming action is impeded by one per cent. of the lactate or citrate of iron in the solution, and by one-half per cent. of nitric and tartaric acid; and it is completely prevented by corrosive sublimate.

4. It is facilitated by the potassa-tartrate of iron, nitrate of uranium, and oxalic acid.

5. Whatever they may be, simple or only primordial, primitive or secondary, the cause of these changes is the *luminous principle*.

6. Dextrine is, however, more an artificial than a natural product. That obtained by diastase, not reducing the reagents of Barreswil and Fehling, undergoes no change from the action of light.

7. Cane sugar undergoes no change. Oxalic acid, one of the derivatives of starch, in solution along with nitrate of uranium, may be boiled, and then kept for forty hours in a stove at 40° C., without the disengagement of a bubble of gas, provided the experiment is performed in the dark. As soon as light, even diffused and clouded, is admitted by raising the cover of the stove, the mixture will begin to exhibit changes. A good exposure of an hour will produce abundance of carbonic oxide, so rapid, indeed, as almost to produce effervescence.

8. In accordance with the direct experiments we have made, animal fæcula (glucogenic material) is more rapidly and abundantly converted into sugar in the light than in darkness, although nitrate of uranium will even hinder this action.

9. Animal fæcula remains in the liver of frogs, without becoming sugar, during the whole of winter. The greatest quantity of sugar in their livers coincides with the period of the ripening of fruits, the end of June, and the months of July and August. The glucogenic matter may be fixed in the liver, just as starch is in tubers or grains. If frogs are kept entirely from the light, no sugar will be formed. We might explain, in this way, how the large amount of glucogenic matter in the cutaneous tissue of the fœtus disappears from this tissue soon after birth, by its sudden passage from obscurity into light.

10. It must also be recollected that although a small quantity of light is required, yet its action must be aided by the presence of certain salts or ferments, and that, in most animals and man, the *amylogenic* as well as the *glucogenic* functions experience no hibernal cessation from work.

11. The actions of light, already described, are generally slow.

12. Hence, if, without augmentation of light, certain substances, on the one hand, double, treble, or sextuple the effects of solar action in the formation of animal or vegetable sugar; if, on the other hand, without diminution of solar intensity, certain others destroy or hinder the change, as in starch, which arises from solar action, it cannot be denied but that exact studies directed to this end would be very useful, as well for vegetable physiology as for agriculture, and possibly also for medicine. It is only necessary to cite diabetes and the influence of exposure to sunlight on scrofula.—*Gazette Hebdomadaire*, September, 1859.

L. H. S.

Experimental Researches on the Action of Caustic Potassa. By SALMON and MAUNOURY, Surgeons of Hôtel-Dieu, at Chartres.

The authors present the contradictory views of numerous surgical writers as to the action of caustic potassa, showing that they vary: 1st, as to the rapidity of the action of potassa in producing eschars—some indicating twenty minutes as sufficient, and others nearly twelve hours; 2d, as to the possibility of regulating its penetrative properties—some opposing the dilution of the agent, and others considering that it is best; 3d, as to the pain produced, Canquoin claiming that it is quite supportable, &c.; 4th, as to the hæmorrhagic tendency: Giroward advising that the tissues should be plentifully washed with water when one operates over vessels of medium size; Canquoin, that this always exposes to sudden hæmorrhages, &c. These questions are attempted to be solved by the experiments made upon animals in 1851, on the human body, and on dead bodies, and the following conclusions are arrived at:

1. Caustic potassa is an agent which very rapidly effects cauterization.

2. It may convert the whole thickness of the skin, covered with epidermis, into an eschar in fifteen minutes; it can perforate a voluminous muscular mass in from six to ten minutes; it produces a hole in cellular and fungous tissues directly; it rapidly destroys vessels, has

a slower action upon fibrous tissues, and does not dissolve osseous tissues.

3. It acts upon the tissues by dissolving them. The eschar presents an appearance as if the skin were cut out by a punch; under the action of potassa muscular fibres and the coats of the vessels become thin, tight, dissolve, or finally burst open. Blood touched by it coagulates at first, its course being arrested; it then becomes liquid, and finally flows. The cornea may be pierced by it, and ligaments and cartilages may be slowly destroyed.

4. Despite its activity in destruction, its action may be limited; on the skin we may make a linear incision, so as to prevent the solution of potassa spreading beyond the limits we wish preserved; below the surface, cellular tissue excepted, the action of potassa circumscribes itself, either by the amount required to dissolve the eschar produced, or by dilution in the liquids, or by forming non-caustic compounds with the tissues.

5. Potassa rapidly effects the destruction of vessels, and facilitates hæmorrhages; but its first effect is to coagulate the blood, and as this coagulum separated from the action of potassa becomes very hard, it is easy to avoid the dangers from hæmorrhage; when the action of the potassa in producing the coagulum is accomplished, the caustic must be removed, so that the after solution is not produced. This can be done by using a *tampon* immediately, made either of dry cotton, or of cotton saturated with vinegar, or with slips of Canquoin's caustic. Potassa may thus be employed to check hæmorrhages, through the rapid formation of a coagulum.

6. Potassa can dissolve the eschars it makes, although it is easier, in the human subject, to remove them by incision. The incision should be made while the eschar is fresh, as it speedily becomes very hard.—

Gazette Médicale.

L. H. S.

The Examination for Sugar in the Urine. By CH. LECONTE, of Paris.

The author examines the action of various tests alleged to be satisfactory in the way of determining the presence of sugar in the urine. He enumerates Trommer's test, ammoniated copper, cuprotartrate of potassa, solution of potassa, lime-water, solution of chromic acid acidulated with chlorhydric or sulphuric acid, and the simultaneous employment of sub-nitrate of bismuth and solution of caustic potassa. The use of these reagents should never induce one to conclude, *absolutely*, as to the

presence or absence of sugar in the urine, as he proceeds to show; although they can render real service when sugar exists in a somewhat notable quantity in the urine.

1. *Trommer's Method*.—This consists in adding to the urine a small quantity of solution of sulphate of copper, then an excess of potassa, and finally to heat the liquid to ebullition, depending on the property sugar possesses, in oxydizing, of depriving the oxide of copper of one-half of its oxygen, and thus reducing it to the condition of *red* oxide, insoluble in the solution of potassa—a result which is very easily accomplished. Nothing is more simple than the application of this process, with the understanding, always, that an excess of sulphate of copper be not employed, for the excess of the oxide present, on which the sugar could not act, would be converted by the temperature into its anhydrous form, and its *black* color would mask the *red* color of the suboxide.

2. *The Cuprotartrate of Potassa* does not present the same objection as that just named, but when it is prepared according to Barreswil's directions, and kept on hand for some time, it often happens that a red precipitate is afforded when it is boiled alone, or after an addition of equal or double volumes of water.

3. *Fehling's Liquor* differs from that of Barreswil, in the substitution of soda for potassa, and can be kept on hand for a longer time; but, as I have determined a number of times, in numerous fruitless experiments, which I have made to find a liquid test for sugar free from reproach, Fehling's liquor is less sensitive than Trommer's method, or that of Barreswil, and it often does not indicate the presence of half a thousandth of sugar added to urine.

4. *Glycerine* has been proposed as a substitute for tartaric acid in the copper solution. The suggestion, although very ingenious, has given me results but little satisfactory, since this liquid, at the end of a few days, deposits in the cold a considerable quantity of the red oxide of copper, and almost invariably, if boiled immediately after its preparation, will exhibit reddish flakes, showing the beginning of the process of reduction.

These four liquids present this inconvenience, that they can be reduced by a *large number* of substances, and particularly by uric acid, as I have satisfactorily demonstrated. Furthermore, even when sugar or uric acid is present, they may be decolorized instead of furnishing a red precipitate, if ammoniacal salts or urea are present in proper quantity. One can very readily be satisfied of this by experiment with the latter reagents when pure.

In order to avoid the trouble from the presence of urea, the author, in his experiments on the urine of females during lactation, adopted the following plan:

“Four litres (about a gallon) of the urine, which quite rapidly reduced the cupro-potassa liquid and reddened litmus paper, were acidulated with acetic acid and evaporated over a water-bath in porcelain capsules; the evaporation was rapid, on account of the shallowness of the vessels. When about eight-tenths of the urine had evaporated, it was allowed to cool, and then alcohol of 38° was gradually added, so as to precipitate most of the mineral salts, and so as to have an alcoholic liquid sufficiently dilute to retain the sugar in solution. This liquid was evaporated to dryness; the residuum drenched with alcohol at 40° , which dissolved out the urea, and left undissolved the sugar and some mineral salts soluble in dilute alcohol. Such a dilute alcohol solution would enable us to employ Trommer’s test with some show of accuracy.”

5. The other processes for the detection of glucose are: the brown coloration which solutions of potassa, soda, baryta, strontia or lime, or even of ammonia, assume in the presence of glucose—this characteristic is worth nothing when search is made for sugar in the midst of a large number of substances whose action on alkalies has not been studied, since the question becomes, then, Is glucose the only substance which imparts a brown color to urine under the action of alkalies? No one, at present, can answer in the affirmative. The coloring substances of the urine are hardly known, and many substances will assume a brown color under the influence of alkalies, which is heightened by heat. All the extractive substances are in this category.

6. The brown color, assumed by nitrate of bismuth, under the influence of potassa in the presence of urine, cannot be considered a peculiar action of sugar, as other reducing agents will produce the same effect.

In conclusion, we see that these secondary actions or characteristics may furnish some useful information as to the presence of glucose in the urine, without being endowed with certainty, since they are also produced by other substances; they have no real value except when united to the essential characteristics.

Essential characteristics are such as belong *alone* to glucose, and are the production of the alcoholic fermentation, and the extraction of the glucose itself.

Alcoholic Fermentation.—Notwithstanding the interesting investigations that have been published, in modern times, on this subject, yet

it remains a fact, that cane sugar and glucose are the only substances that, in contact with yeast, undergo regular fermentation, furnishing pure carbonic acid and alcohol. Any liquid which does not evolve carbonic acid, after two hours' contact with yeast and exposure to a temperature between 68° and 86° , should be considered as free from sugar, unless, however, the volume of the gas formed be much less than that of the liquid containing the sugar. Indeed, yeast should only be *directly* added to urine in cases of very decided diabetes; when it is necessary to search for sugar in urine containing but a small quantity, it is proper to concentrate the sugar after the method already described, and then to expose the substance which has been isolated with a small quantity of water and yeast to a temperature from 68° to 86° ; fermentation will then take place rapidly. In order to be satisfied that the gas discharged does not proceed from any alteration of the yeast, a small quantity of the latter should be exposed along with pure water in a tube alongside of that in which the test has been applied.

The best arrangement for the accurate employment of the fermentation test is this: a large test-tube is taken, closed at one end; to the other end a cork is adapted, through which is passed a tube of small bore, drawn out very narrow at the lower end, which should reach almost to the bottom of the large tube; the upper end of the tube should pass through the cork about an inch, and remain open. The test-tube is filled with the mixture of urine and yeast, then the cork with the smaller tube is introduced—a small quantity of the liquid will run out through the open end of the small tube. The large tube is then placed in lukewarm water—fermentation taking place, the gas rises to where the cork is inserted, and pressing downward, gradually forces out the liquid, which escapes from the upper extremity of the small tube. In order to test the nature of the gas, the open extremity of the small tube is plunged into a solution of potassa; the closed end of the test-tube is heated by a spirit-lamp, so that a few bubbles of gas may escape; the lamp being removed, the gas cools, contracts; the solution of potassa enters, filling it entirely, if aided by slight agitation.

Extraction of the Sugar.—In the present condition of science, we feel authorized to declare, that sugar is present when fermentation yields carbonic acid and alcohol; yet, strictly speaking, the separation of the sugar itself only should permit us to give a positive opinion as to its presence. Now, the process for the extraction of sugar is so delicate that we could obtain it, although there were only five centigrammes in 200 grammes of urine. Leconte's process is as follows, be-

ing a modification of Lehmann's: The urine is slightly acidulated with sulphuric acid, since the mineral sulphates are all insoluble in alcohol; then it is evaporated in very shallow dishes until a pasty residuum is obtained, to which is added, in the warm, a small quantity of alcohol at 33° , in order to dilute it. This is placed in a flask and exposed to a boiling heat; the alcohol poured off, and more added, so that the residuum shall be exposed to the action of boiling alcohol two or three times. The liquids thus obtained are poured into one vessel, heated and filtered; after they have cooled, a saturated alcoholic solution of caustic potassa, recently prepared, is added in small quantities, strong agitation being used after each addition; the liquid, which at first becomes turbid, clears up by the deposition of a pasty substance on the sides of the flask. The potassa is added so long as it produces any turbidness; then the clear liquid is decanted, and the deposit in the flask is removed by rinsing it carefully with alcohol. This deposit is then dissolved in a small quantity of water; its potassa is precipitated by excess of tartaric acid and agitation, and the bitartrate of potassa is removed by filtration. The acid liquid, in the cold, is treated with chalk in excess—being agitated from time to time, until it becomes perfectly neutral to test-paper, when it is refiltered, evaporated in a water-bath, and the residuum treated with alcohol. This alcoholic liquid, being allowed to evaporate spontaneously, furnishes a syrup, which, after a long time, (one of my specimens required eight months,) gives small, four-sided, prismatic crystals, with diedral summits.

When, instead of extracting the sugar, it is only desired to try the fermentation test, it will answer to saturate the aqueous solution of the precipitate, produced by the potassa, with dilute sulphuric acid; the sulphate of potassa, being but slightly soluble, subsides, especially when agitation is used; it is then separated by the filter, and the filtrate, being diluted with a small quantity of water, is mixed with yeast, and placed in the fermentation apparatus.

The precipitate referred to in the preceding paragraph is mostly urate of potassa, when it will not undergo the process of fermentation. This can thus be proven: after the precipitate is dissolved in a small quantity of water, if the solution be heated with a slight excess of acetic acid, and then allowed to remain in a cool place for a few hours, on treating it with alcohol, crystals of uric acid will separate, which can be recognized by the microscope, or by their transformation into murexide under the action of nitric acid.—*Gazette Médicale*, Oct. 8, 1859.

L. H. S.

Perchloride of Iron in Diphtheritis. By DR. F. ISNARD.

The following are the conclusions presented by Dr. Isnard, with which he closes his memoir on the nature and treatment of this disease:

Croup and *angina membranacea* are special inflammations of the fauces and air-passages, with a peculiar alteration of their mucous membranes, which allows fibrino-albuminous products, formed at the expense of the elements of the blood, to transude in the form of pseudo-membranes.

They are always, at the commencement, local affections. Sometimes they remain local; sometimes they are infectious. Diphtheritic infection is always consecutive, never primitive. The cause is the alteration and resorption of the pseudo-membranous products, which is analogous to the purulent resorption that is always consecutive to a solution of continuity or to any inflammatory condition. The rapidity and the importance of diphtheritic poisoning vary in accordance with a host of unknown conditions, among which the epidemic character plays a prominent part.

The false membrane, being the cause of all the grave phenomena which appear in the course of membranous affections, as much by its mechanical agency (suffocation, asphyxia, &c.) as by its dynamic effects, (resorption and diphtheritic poisoning, &c.) to prevent its formation, or to destroy it when formed, is the duty of therapeutics. The treatment is medical and surgical, or external. Rational medical treatment consists in putting the blood quickly in such a condition that its fibrino-albuminous elements cannot transude the mucous membranes, or that they shall not escape except in a form almost serous. Fluidifying and alterative agents have hitherto had the most reputation in the medical treatment of croup. But in general they act too slowly, too feebly, have the inconvenience of weakening the system, and without preventing entirely the danger of diphtheritis; hence they have been rejected. Of all these, tartar-emetic, in large doses, has produced the greatest number of cures.

Coagulating agents act more rapidly upon the blood, and have the advantage of removing none of its elements, and of preventing the ultimate accidents of membranous affections. In this class, the perchloride of iron, by its harmlessness to the system and the promptitude of its action, merits the preference. It is the sheet-anchor of therapeutics in croup, a species of specific for that terrible disease.

The action of perchloride of iron in these diseases is triple:

1. Action on the blood, whose fibrino-albuminous elements it makes

more or less plastic, and makes it thus impossible for them to pass through the mucous respiratory surface; and afterwards, in infectious cases, to pass back into uriniferous tubes, solutions of cutaneous continuity, &c.

2. Action on the respiratory mucous membrane, whose fibrino-albuminous elements it plastifies, and closes up the organic tissue. In this way the mucous tissue becomes incapable of admitting the passage of the albuminoid principles of the blood.

3. Tonic action, strengthening the nervous system; an essential action, according to many physicians, but of secondary importance, in my opinion, in the treatment of croup.

The perchloride of iron should be administered as soon as possible after the inception of the disease, in large doses. Its use should be continued at all stages of the disease, both when false membranes are formed and when the general infection is established. Under all these circumstances its action will be the same; an action rather physico-chemical on the elements of the blood and the respiratory mucous membrane, than dynamical on the nervous system.

The surgical and external treatment is also important. It consists in frictions with croton oil on the neck, with revulsives to the extremities; cauterization of the false membranes at accessible points; inhalation of alkaline solutions; and, if necessary, tracheotomy.—*Gazette des Hôpitaux*.

L. H. S.

Voltaic Narcotism.

Dr. Althaus, of London, in an article in the *Vienna Medical Weekly*, thus disposes of this subject as proposed by Dr. Richardson, and noticed in *AMERICAN MEDICAL MONTHLY*, Vol. XII., 312: It is well known that many experiments have been made to introduce medicinal agents into the organism by the help of galvanism, employing the *locomotive* force of the constant current by means of which liquids can be transported from one pole to another, without decomposition. Experiments on this subject were principally made by Sir Humphrey Davy, and more recently by Wiedemann. Experiments with the view of introducing medicinal agents may be considered as having failed, since the results claimed by Fabré-Palagret have not been confirmed by any one, and the experiments of Klencke and d'Hassenstein are generally doubted. Dr. Richardson claims, however, to introduce narcotic liquids in a portion of the body by the aid of electricity, and even to produce anæsthesia in this way. He styles this method *vol-*

taic narcotism, and, for some weeks, made considerable noise with it in the London hospitals, until Prof. Waller, of Birmingham, advanced the opinion in a lengthy article, that the anæsthesia produced in this way was simply due to the absorption of the narcotic substances. Dr. Richardson had stated that the local application of these substances, *without* electricity, never produced anæsthesia, not even when they were applied on a part as delicate as the ear of a rabbit. This is clearly not so, for in an experiment made by Dr. Althaus with chloroform and the constant current, complete anæsthesia of the skin was produced when pressure was employed for about ten minutes, a sponge being employed saturated with chloroform; the simultaneous action of the sponge and the poles of the galvanic battery did not, however, hasten the production of the anæsthetic effect. An hour after the experiment, he experienced a very acute pain, and on the next day there was developed an active inflammation, which lasted nine days, terminating in suppuration. During all this time the pain was severe, (*atroce*,) especially at night; the cicatrix formed slowly, first at the places where the chloroform alone had been applied, then at those where chloroform and galvanism had been used. Prof. Waller made experiments on animals with the narcotic solution, (equal parts of tincture of aconite and chloroform,) proposed by Richardson, and they died in a short time after the experiments, in consequence of poisoning of the blood by the narcotic solution. It is, then, possible that such a disastrous effect might be produced on children, especially such as were debilitated, if operations were practiced on them by the aid of voltaic narcotism. From all this, it follows that chloroform,* despite the attacks made upon it, is thus far the only means really useful, and relatively devoid of danger in the production of anæsthesia in surgical operations, and that all other means proposed to replace it have been demonstrated as insufficient.—*Wiener Med. Wochenschrift*.

L. H. S.

Arsenious Acid in Apoplectic Congestions. By DR. LAMARC-PICQUET, of the Hospital of Houlfeur.

The author gives, as the result of his investigations on this subject, the following conclusions: Apoplexy is essentially misunderstood, since the effusion of blood is only a secondary phenomenon. It is

* The translator must dissent from the statement of the author here. The voice of the profession is demanding that ether be the sole agent employed in producing anæsthesia.

easy to master the preliminary symptoms of apoplexy, which is owing to an undue increase of blood-globules. Arsenious acid is a valuable therapeutic resource in all congestions of the cerebral apoplectic form, since its first effect is to render the blood less rich in globules and less plastic. It is, however, indispensable, before the use of the agent, that the richness or condition of the blood should be determined, as, in case this fluid be poor in globules, the use of arsenious acid would increase such an abnormal condition.

The action of arsenious acid is connected so intimately with the digestive process, that it should be employed while one is at the table, in order to facilitate its assimilation. The agent should also be used for some time after the cure is effected, in order to increase the probability of the duration of the cure. The agent cannot be considered, however, absolutely antidotal; and hence the physician must always consider the mode of living, idiosyncrasies, and pathological condition of his patient. The dose is usually from four milligrammes to one centigramme (from $\frac{1}{16}$ to $\frac{1}{6}$ of a grain) a day.

The author employed this treatment in his own case. He had been laboring under all the annoying symptoms which seem to predict an apoplectic attack—sense of weight in the head, and feeling of constriction. His age was then fifty-six, constitution robust, temperament very decidedly sanguine. From October 29, 1845, to March, 1849, he treated himself by bleeding, bicarbonate of soda, and other agencies, but at last, having perceived the effects of arsenious acid, he determined to try it in his own case.

“March 23, 1849, I commenced the arsenical treatment, employing five milligrammes, at breakfast and dinner, in water, and used a vegetable diet most strictly, except when very much fatigued, when fresh fish was employed. This dose of the medicament was employed for a month without the least inconvenience to the digestive process. May 3, I was perfectly well, although fifty days had passed without the use of bloodletting. A small quantity of blood being drawn on that day, it furnished fifty-two parts of cruor to the hundred. (In previous bleedings, the per centage ranged from 58 to 75.) Cerebral sedation had been completely gained, and the elements of the blood were in normal proportions. It was necessary to preserve this state of affairs, and I continued the use of the agent. The dose was even made as large as sixteen milligrammes. Occasionally the medicine was suspended for eight or ten days, then resumed for a period of fifteen or twenty days. This treatment continued until November, 1849. Then, I experienced some gastric troubles, (weakness of stom-

ach and flatulence;) and I ceased to take the arsenical solution, when the nervous symptoms disappeared. Returning occasionally to the use of the medicine, in order to steady its action on the stomach, the same nervous phenomena always showed themselves—yielding to its discontinuance. The dose was reduced to eight milligrammes a day, which never produced any gastric derangement.”

“After November, 1849, my usual mode of living was adopted, as before the year 1845. I could eat game, and even take a glass of wine, which I had not done for more than four years. Up to the month of March, 1850, no symptom of cerebral excitation was experienced, but then I experienced some of those flying symptoms which always indicated the approach of a congestive condition. On being bled, with a view to examine the composition of the blood, found that there was 58 per cent. of cruor. The arsenical solution was again taken, four milligrammes morning and evening; and this treatment was continued until May, without returning to a vegetable diet; making my meals of meat, legumes, and fruit, and using water as the only beverage. During the month of July, 1850, I enjoyed the best possible health, the heat of the summer and a more substantial diet producing no unfavorable effects.”

“From that time, for nearly five years, no arsenious acid was taken, and no cerebral trouble was experienced. On the night of January 5, 1856, however, I was troubled with a nightmare, which wakened me with a start, and left me laboring under a species of noisy sounds in the head, continuing until morning. During the following days, I experienced a sensation similar to that produced by a cap tightly drawn around the head, and the continuance of this symptom brought to mind my previous attack. Venesection was performed, to the amount of fifteen or twenty grammes, so as to get an idea of the nature of the blood; the per centage of cruor being 66. I resumed the use of arsenious acid, in dose of ten milligrammes, and continued it until March, when the quantity was reduced to eight milligrammes. In May, being perfectly well, the treatment was discontinued. I am now in my sixty-sixth year, and age has of course not diminished the predisposition to apoplectic congestions. In March, 1859, I suffered from ringing sounds in my ears and pains in the head, (the countenance was more colored than usual,) awkwardness in, and fatigue from, locomotion, disturbed and troubled sleep. These symptoms induced me to examine the condition of the blood, which showed 64 per cent. of cruor. I immediately resorted to arsenious acid, in dose of six milligrammes, and I still enjoy the beneficial results of the treat-

ment—my head is perfectly clear, and my body and spirits are active.”

This last fact furnishes me the following bit of instruction:

In subjects constitutionally sanguine, morbid predispositions, depending on that condition, such as cerebral congestions, can be modified for a longer or shorter time, but nature tends always to assume its rights. It becomes a man, in the decline of life and in old age, when his mind is not injured, to hearken to those preliminary indications that announce its destruction. As a corollary to what I have written, it may be said, that arsenious acid cannot always modify apoplectic predispositions, but that, in the slightest congestive tendency to the brain, persons of a plethoric habit should have recourse to an agent which will promptly check this congestion, and continue its use long enough to prevent a relapse.—*Bull. Gén. de Thérapeut.*, Sept., 1859.

L. H. S.

MONTHLY SUMMARY OF MEDICAL JOURNALISM.

By O. C. GIBBS, M.D., Frewsburg, N. Y.

A New Cure for Ingrowing Nail.—In the *Boston Medical and Surgical Journal* for December 29th, Dr. N. Gilman gives a new plan of treating ingrowing nail, for which he claims prompt and satisfactory results. The treatment which he advises he says he has put to the test for twenty years, without failure. It is simply to cauterize the part with hot tallow. He says: “The patient on whom I first tried this plan was a young lady who had been unable to put on a shoe for several months, and decidedly the worst case that I have ever seen. The disease had been of long standing. The edge of the nail was deeply undermined, the granulations formed a high ridge, partly covered with skin, and pus constantly oozed from the root of the nail. The whole toe was swollen, and extremely tender and painful. My mode of proceeding was this: I put a very small piece of tallow in a spoon, and heated it over a lamp till it became very hot, and dropped two or three drops between the nail and the granulations. The effect was almost magical. Pain and tenderness were at once relieved, and in a few days the granulations were all gone, the diseased parts dry and destitute of feeling, and the edge of the nail exposed so as to admit of being pared away without any inconvenience. The cure was complete, and the trouble never returned. I have tried this plan repeatedly since, with the same satisfactory results.”

Asphyxia Neonatorum.—In the *Lancet and Observer* for January, Dr. A. T. Keyt, of Cincinnati, has an article on the treatment of asphyxia of new-born children, in which he compares the old, or “mouth-to-mouth” treatment, with the “Ready Method” of Dr. Marshall Hall. Dr. Keyt prefers the old method, and with a fair show of reason. “It may be remembered that the case of the asphyxiated new-born child is not just parallel with that of the asphyxiated adult. The first has never respired. The chest has never been expanded; the air-vesicles have never been opened. The chest and lungs, then, do not possess that elasticity or resilience which would be so important an element in successfully carrying on the ‘rotation process.’ It would be difficult to understand how, under it, the first expansion of the lungs could take place; when the child is turned on its face, the lungs being already compressed, the capacity of the chest could be thereby but little, if any, diminished; and when turned upon the side, and a little beyond, as directed, it could be but little, if any, increased.”

In reporting cases of comparative trial, in one he says: “*At least one hour elapsed before the child gave a gasp*, and two hours before it could be left to do its own breathing. My dependence was upon the *mouth-to-mouth* process: by it I found no difficulty in controlling the circulation! It seemed as though the heart’s action might have thus been maintained indefinitely. The ‘Marshall Hall Method’ was tried, but the results were negative; under it pallor and lividity would return to the surface, and the circulation grow gradually more and more feeble, until the heart’s action would plainly have soon ceased, had it not been timely aroused by a more *ready* and *efficient* method. Several times did I alternate the new method with the old, and just as often did I witness the same striking contrast of phenomena.”

This is an interesting subject, and we must confess to a liking for the old rather than the new method in asphyxiated new-born infants. Where the child has a beating heart at birth, by judicious and persevering efforts respiration and resuscitation can usually be established. Where the lungs have never been expanded, we cannot see how the “rotation process” of Dr. Hall can be of much service, and we are glad of this opportunity of cautioning our younger readers against placing too much reliance upon it in such cases—inflate with your own breath, and then you may know that the inflation is being effected.

Treatment of Prolapsus of the Funis.—Prolapsus of the funis is not an uncommon accident, and, without appropriate treatment, it is one

that often results unfortunately to the life of the child and the hopes of the mother. Professor Mendenhall, of Cincinnati, applauds the treatment of this accident by position of the mother: successful cases have been reported. In the *Lancet and Observer* for January, he reports another case converted, in a few moments, by this method, into a simple case of labor. He places the woman upon her breast and knees, in which position the funis is readily replaced. The position may be maintained, if need be, until the presenting part occupies the pelvic strait. It is probable that the position need not be long maintained. Prof. Mendenhall concludes his paper with the following remark: "In view of the frequent fatality to the child of this complication, I deem a knowledge of its proper treatment a matter of great importance. I think with this knowledge that few, if any, cases ought to result unfavorably to the child, and a resort to turning the child is seldom, if ever, necessary."

Gelsemin.—In the *Medical Press* for January 2d, Dr. B. Keith, of New York, has the following upon gelsemin, which article he says he has used daily for the last eight years: "For controlling fevers of every type and grade; to arrest hæmorrhage from the lungs, stomach, bowels, uterus, and urinary organs; in dysentery and bowel complaints; in spermatorrhœa, amaurosis, deafness, catarrhal affections, hay-fever, I have used the gelsemin successfully. A single half grain has arrested hæmorrhage from the lungs, when all other remedies known to me had failed. While experimenting with it to ascertain its power for arresting hæmorrhage, I gave to a lady who had been confined two days previous, one and a half grains during twenty-four hours, which amount completely arrested the hæmorrhage. I administered two grains, during the course of thirty-six hours, to a lady who had been suffering from uterine hæmorrhage for two months, and that small quantity completely stopped the flow. So effectual is it in this form of hæmorrhage, that I consider it quite a specific. In dysentery and bowel complaints, I consider it the most valuable article in the *Materia Medica*. From one-tenth to one-eighth of one grain administered after each discharge, will shortly stop all hæmorrhage and traces of the disease." * * * "In dry coughs, dependent upon irritation of the throat, it is the most prompt agent I have ever used. In nausea and vomiting I have used it, many cases yielding to a single dose of one-fourth of one grain."

Lupulin in Delirium Tremens.—In the *Medical and Surgical Reporter* for December 31st, Dr. D. S. Gloninger, of Philadelphia, has an article upon the use of lupulin in delirium tremens. Of the treat-

ment he says: "Our only indication is sleep, and that must be brought about with the least risk to the sufferer. Have we that which will effect so desirable an end? In lupulin we have that which answers every indication; it is safe; may be given *ad libitum* without danger; a table-spoonful, if you please, every hour until sleep is produced. We have given as much as six pounds before its narcotic effects followed, and would have had no hesitation in giving four times the quantity, were six insufficient."

The above quotation justifies no other inference than that pure lupulin was used; yet, in the succeeding report of a case, it is stated that a tincture of lupulin, made with *pure brandy*, was used. It will readily be seen that there is a difference between *six pounds* of lupulin and six pounds of tincture. If the latter was used, it is quite probable that the brandy had some share in the cure. Will the Doctor please give further particulars?

Chloroform and Cod-Liver Oil in Diphtheritis.—In the *Boston Medical and Surgical Journal* for January 5th, Prof. E. S. Cooper, of San Francisco, has an article upon the above subject. In this affection he thinks the use of the probang injurious. He says, "My treatment is as follows:

R.—Chloroform,	℥ij.	
Ol. jec. anseli,	℥xij.	
Spts. terebinth.,	℥ij.	M.

Apply freely all over the neck, breast, and abdomen, upon flannels covered with oil silk. This I keep on constantly during the continuance of the disease, and for eight or ten days after the patient has sufficiently recovered to walk about. The object of continuance is to prevent relapses, which are very frequent and fatal, without some prevention is used. And this is what is wanted in these cases. Internally, I direct the following to be administered:

R.—Ext. glycyrrh.,	℥ij.	
Acaciæ gum.,	℥j.	
Antimon. tart.,	gr. j.	
Sacch. alb.,	℥ij.	
Aquæ,	℥xviiij.	M.

Give a wine-glassful every two hours to a young child, say two years old, and increase in proportion to age. I have had as much, if not more, satisfaction in the results of the treatment of diphtherite on the foregoing plan than in anything occurring in my professional life besides. I therefore recommend it with confidence to the medical profession. I have tried it with nearly the same success in scarlatina. During the course of treatment I do not give patients a particle of

anything else; not a drop of water, nor the least nourishment, save what is in the medicine."

With this treatment in diphtheritis he says, "Of thirty-one patients I have lost but one; and in that case the patient had been sick for several days, and died about eight hours after I first saw him."

This is certainly a very satisfactory result. For convenience of administration, especially to young children, we consider the size of the dose an inconvenience; and the absence of nourishment, especially in scarlet fever, we cannot believe adds efficacy to the treatment.

Puerperal Convulsions.—In the *New York Monthly Review*, &c., for January, Prof. White, of Buffalo, reports a case of puerperal convulsions of great severity, treated without bloodletting, but quite successfully, with chloroform, &c. "Dr. White thinks puerperal convulsions a disease *sui generis*, not apoplectic, nor epileptic; hence, bleeding is seldom necessary." * * * "The puerperal convulsion is, no doubt, caused by some remote uterine irritation, perhaps uræmia, though the latter is not constant. This condition tends to develop convulsions. His theory is, that we should give chloroform and anodynes to relieve this irritable state of the system, to be followed with croton oil as a counter-irritant. This is easily administered, and acts as a powerful revulsive. He thought we should never arrive at a correct theory, or satisfactory treatment of this disease, until we change our notions in relation to the character of the seizures." We copy the above opinions with pleasure, corresponding, as they do, exactly with our own. We believe more women have died in childbed from the lancet than from convulsions. Cases of puerperal convulsions probably do occur, requiring the abstraction of blood; upon this point we will not call in question the universal judgment of the profession, but we may be permitted to say that such we have never seen. In eleven years' experience we have never bled a case of puerperal convulsions, nor lost a woman in childbed. Eschewing the charge of egotism, we attribute this favorable issue rather to the casualties of good luck than to legitimate sequences of peculiarities of treatment.

Bronchitis.—In the *Medical and Surgical Reporter* for January 7th, Dr. J. R. McClury has an article upon bronchitis. In regard to treatment in the acute form, after bloodletting, if indicated, he advises the following:

" R.—Nitratis potassæ,	3ij.	
Tartari emetici,	gr. ij.	
Tilden's verat. viride,	f. 3j.	
Aquæ font.,	f. 3vij.	M. S.

Take a table-spoonful every three hours in a tea-cup of flaxseed tea."

In cases of chronic bronchitis the following is advised:

"R.—Potassii ferrocyanuret,	f. ʒiv.
Vin. colchici sem.,	f. ʒj.
Tilden's verat. viride,	f. ʒij.
Aquæ font.,	f. ʒj. M. S.

Take from 20 to 30 drops three or four times per day."

In cases of a scrofulous character, or in scrofulous constitutions, the following is recommended:

"R.—Syrup sarsap.,	f. ʒviiij.
Iodide potassium,	ʒij.
Fowler's Solution,	f. ʒij.
Tilden's verat. viride,	f. ʒjss. M. S.

Take a tea-spoonful three times per day."

We believe it was Prof. G. B. Wood, of Philadelphia, who first advised Fowler's Solution in this form of bronchitis, and we have no doubt of its utility in many cases.

In cases accompanied with great debility, Dr. McClury advises cod-liver oil in usual doses, and the following:

"R.—Mist. ferri comp.,	f. ʒvj.
Tilden's verat. viride,	f. ʒij. M. S.

Take a tea-spoonful three times per day."

Dr. McClury thinks opium objectionable in all cases of bronchitis. He thinks the veratrum viride is equally efficacious as a sedative, and far less objectionable.

Belladonna as an Antigalactic.—In preceding numbers of our *Summary*, we have accumulated evidence of the power of belladonna to control the secretion of milk. Our own experience has also been already given. In the *Medical and Surgical Reporter* for January 7th, Dr. G. E. Galen reports three cases in which the secretion of milk was arrested, and abscess prevented by the use of this article.

He says: "I have tried it in a number of cases, and never yet met with a single failure. What peculiar action the belladonna has in arresting the secretion of the mammary gland, I do not know, but that it does so, if used continuously, and in sufficient proportions, I am certain."

Bronchocele.—In the *N. A. Medico-Chirurgical Review*, for January, Dr. O. B. Knobe, of St. Joseph, Missouri, reports the cure of a severe case of bronchocele. A puncture was made, and five pints of fluid were withdrawn. It was now firmly strapped with adhesive plaster, and five grains of iodide of potassium were administered three times a day. In about fifteen months the cure was complete.

Stomatitis Materna.—In the last number of our *Summary*, we gave Dr. J. C. Reeve's plan of treating this troublesome affection with the compound syrup of the phosphates. In the *N. A. Medico-Chirurgical Review*, for January, Dr. E. J. Fountain, of Davenport, Iowa, has an article upon the same treatment of this disease. He has treated four well-marked cases of stomatitis materna with the compound syrup of the phosphates, with the happiest results. He says: "These cases impressed my mind with the belief that, in the syrup of the phosphates, freely administered, we had a pleasant and efficient remedy for the fulfillment of the most important indication. In simple and mild cases it has appeared to be the only remedy needed; but in those of a more aggravated character it cannot be depended upon as a specific, but must be aided by other treatment appropriate to particular symptoms. In the case last referred to, I increased the strength of the syrup, by the addition of an extra quantity of the phosphate of iron and phosphate of lime, giving to the patient five grains of each with every dose, and finally administered in connection with cod-liver oil."

Inversion of the Uterus.—Our readers will doubtless remember our extract from Prof. Bedford's Lectures, in our *Summary* for February, upon the reduction of uterine inversion. It will be remembered that he advised the reduction to be made before removing the placenta. In the *N. A. Medico-Chirurgical Review*, for January, Dr. Wm. Irvin, of Pennsylvania, reports a case of inversion and reduction, teaching, by inference, an opposite doctrine. Immediately after inversion, he says, "I severed the cord, and made several unsuccessful attempts to reduce the uterus, with the placenta still adhering. The hæmorrhage became very alarming, and the woman was sinking, when I remembered Prof. Meigs' injunction to remove the placenta and return the organ, by pressure upon its fundus. I therefore detached it as quickly as possible, and had the satisfaction of finding that the bleeding was much diminished." The uterus was soon reduced, and the patient made a good recovery.

Miasmatic Hæmaturia.—In our *Summary* for February, we made reference to the paper of Dr. Brickell upon this subject. The article referred to, and the editorial remarks of one of the editors of the *New Orleans Medical News and Hospital Gazette*, have called forth two other articles upon this subject, which articles will be found in the January issue of the above-mentioned journal. One of the papers referred to is by Dr. J. C. Cummings, of Monroe, La. Dr. Cummings differs from Dr. Brickell in regard to the nature of the hæma-

turia. He thinks it is not *miasmatic*, and one of his reasons for this opinion is, that "most cases have occurred on the oldest plantations in this parish." Another reason given is, that "it is a disease entirely unknown here until within the last three or four years." He says that during the past summer he has seen and treated five cases; three of the five cases died. Tannin was a favorite remedy with Dr. Cummings.

We confess to a preference for the opinions of Dr. Brickell, and think it is quite probable that, had Dr. Cummings treated his cases with liberal doses of quinine, opium, and perhaps tannin, the result might have been different.

The other paper in the January number of the *News and Gazette* is by Dr. Marsh, of Port Hudson. Whereas Dr. Cummings considers the disease of quite recent origin, Dr. Marsh says, "I was not aware that this disease was considered more rare in malarious districts than other forms of nondescript intermittents, appearing under the garb of pneumonia, dysentery, gastritis, &c. He regards the hæmorrhage as the result of an intermittent engorgement, and says, "Arrest the intermittent, and the hæmaturia, pneumonia, flux, or any other disease it may choose as a mask, ceases." He says he saw three cases last August, all of which were treated with quinine, counter-irritation, and soon recovered.

We cannot conclude our notice of the paper of Dr. Marsh without referring to an idea that we consider erroneous. He says, "When I read in the medical journals of the day of the successful treatment of pneumonia and other inflammatory diseases by quinine, I feel confident the writers are mistaken in their diagnosis; that they are treating a true and genuine intermittent, disguised in all the habiliments of idiopathic inflammation."

We have treated quite a number of cases of pneumonia with quinine, opium, and ipecac, and the "journals of the day" contain the record of such experience. It is easy to assert that our diagnosis is in error—and we shall attempt no self-defence upon this point—but when he says we "are treating true and genuine intermittents, disguised, &c." we enter a demurrer; for an intermittent or remittent fever was *never known to originate* in the present range of our practice, and where we have found quinine, qualified as above, so serviceable in pneumonia. It may be well to observe here, that it is not every case of pneumonia that is best treated with quinine. The pulse, tongue, and the general condition of the patient are the guides to a correct indication.

Acetic Acid in Erysipelas.—In the *Atlanta Medical and Surgical Journal*, Dr. Wm. Hauser has an article upon the above subject. He regards erysipelas as the result of a super-alkaline condition of the system, and thinks acetic acid the appropriate treatment. In fact, he is of opinion that the benefits following the use of the muriated tincture of iron are mainly due to the acid character of the medicine.

We are not quite prepared to give full-assent to Dr. Hauser's opinions, but the subject is evidently worthy of further observation.

Iodine Injections in Lymphatic Tumors.—In the *Chicago Medical Journal*, for January, Prof. Daniel Brainard reports a case of lymphatic tumor, successfully treated with iodine injections. The tumor was situated immediately above the clavicle, behind the sterno-mastoid muscle. It was tapped, and twelve ounces of fluid drawn out. The tumor was then injected with a "small quantity of a solution composed of iodine, one scruple; iodide of potassium, one drach.; to one ounce of water. A small quantity remained." A perfect cure resulted.

Treatment of Indolent Ulcers.—In the *Chicago Medical Journal*, for January, Prof. Brainard has the following upon the treatment of indolent ulcers: "During the last three years nearly all the cases of indolent ulcers, entered under our care, to the U. S. Marine Hospital, have been treated by the vapor of iodine. The result is very satisfactory in nearly all cases; more so, by far, than that obtained by any other single method. Its advantages are conceived to be these:

1. Cleanliness and facility of application.
2. Rapidity of cicatrization.
3. Destruction of the odor of the ulcer. Iodine acts as a disinfectant, like chlorine.

The manner of using it is as follows:

1. Dress the ulcer with simple cerate, spread on lint.
2. Take from one to four grains of iodine, according to the size and degree of indolence of the ulcer, folded in several layers of lint, and place it on the ulcer, over the first layer.
3. Cover this with a piece of oiled silk and tin-foil, which should be large enough to extend beyond the edges of the ulcer. This is to prevent rapid vaporization, and it should be secured by a roller. The warmth of the member speedily vaporizes the iodine, and a sensation of warmth is perceived by the patient on the ulcerated surface. If applied in too large quantity, or too directly on the surface, the iodine acts as an escharotic. Care is therefore required in this respect."

Treatment of Intermittents.—In the *Nashville Journal of Medicine and Surgery*, for January, Prof. W. K. Bowling has a very able arti-

cle upon the treatment of malarious fevers in general, and intermittents in particular. It is impossible to give a complete summary of Prof. Bowling's able and eloquent article without making larger quotations than we have space for at present.

The opinions of Prof. Bowling are in accordance with those which we have long entertained, and feebly advocated for years, and are, consequently, of peculiar interest to us. We are confident that any physician that makes them his guide in practice will never have occasion to regret it. Our readers will remember that we gave a summary of W. A. Brown's article in a former number of the MONTHLY. Dr. Brown is of opinion that the complications and sequelæ are mainly due to neglect or inefficient treatment. Prof. Bowling, also, believes, and with this idea we have long coincided, that, if timely administered, quinine is adequate to the prevention or cure of all malarious diseases. He who spends a week or two in bleeding, and vomiting, and purging, and giving calomel, will have no reason to rejoice at his success. In 1680, the immortal Sydenham said that bleeding and purging only prolonged the disease; in his own practice, he resorted immediately to the Peruvian bark, and he advised his professional brethren to do the same, declaring that he never found any ill consequences to follow its use. Sydenham did not believe that any preparatory treatment was necessary in simple intermittents, and Prof. Bowling says, "Our various classes in the University of Nashville know that I have always taught precisely the same doctrine. That I have there every year declared that simple intermittent fever could be 'cured' by quinine, and its return prevented by quinine, and quinine alone, in both cases. That six grains of quinine was a good medium dose (given stirred up in a little water) in this latitude, which ought to be increased as we go South towards the Gulf, or Southeast towards the sea-board. That three such doses were sufficient for the *coup-de-grâce* of simple intermittent. That if we have the selection of time to begin with it, we choose that nearest to the *last* paroxysm, the beginning of the sweating stage of that paroxysm being preferred. And this rule we obey, whether the type be quotidian, tertian, or quartan. I make the interval between these doses two hours, so that eighteen grains are taken in four hours." * * * "On the ninth day, counting from the last paroxysm, however well the patient may be, I insist that two more such doses of quinine be taken, and so two doses more every ninth day, one in the morning and one in the evening, for five consecutive periods of nine days each. He is now certainly relieved from the effects of his poison, and if he were ever

after to stay away from those localities where it is generated, he would never have another attack."

The above fully corresponds with our idea. We have always resorted, in malarious disease, to quinine without delay, and on all suitable occasions have advised the same, *believing that the best preparatory treatment for intermittents and remittents is that which will immediately prevent a return of the paroxysms.* After such interruption, the secretions, if at fault, can be corrected at leisure. We have long since believed that relapses were seldom necessary if the remedy was sufficiently persevered in. Quinine is a *preventive* as well as a *cure*, and should be administered with that in view, after the apparent cure.

In *inflammatory intermittents*, Prof. Bowling says, "In this climate, a single moderate bleeding will alone, in a large majority of cases, reduce an inflammatory intermittent to the simple form, when, if quinine, in twelve-grain doses instead of six, be administered *immediately* after the bleeding, and be repeated at intervals of two hours, until thirty-six grains are taken, the disease is conquered at once."

Where, for any reason, the bleeding is deemed not advisable, we believe the same end may be secured by administering a full dose of opium with the quinine, from three to six hours before the chill is expected. We do not mean one grain, but from three to six grains. In congestive intermittents, if the case is seen very early, and before active inflammation is induced, we question whether the opium is not preferable to bloodletting.

Of quinine, Prof. Bowling says, "I have been in the habit of regarding the sulphate of quinine as the greatest of blessings vouchsafed by a beneficent Providence to afflicted man, and a defence of its eminent virtues has ever been to me a most pleasurable employment."

Chlorate of Potash in Acute Rheumatism.—In the *St. Joseph Journal of Medicine and Surgery*, for January, Dr. J. B. Snelson has an article on the treatment of acute rheumatism with chlorate of potassa. He reports three cases thus treated, with results quite satisfactory. The following is his formula for administration:

R.—Chlorate of potassa, saturated solution, f. ʒvj.
Tinct. veratr. virid., ʒss. M.

Dose.—A table-spoonful three or four times a day, and ten grains of Dover's powder at bedtime. The trial is too limited for positive results; yet Dr. Snelson thinks "it holds out encouraging hopes that it may have superior claims as a remedy over that painful and troublesome disease."

Cholera Infantum Cured by a Poisonous Dose of Fowler's Solution.—

In the January issue of the *St. Joseph Journal of Medicine and Surgery*, Dr. P. A. Chambers reports a singular case of the cure of a dangerous disease by a still more dangerous accident. A child two years old, laboring under cholera infantum, that had been for a long time ineffectually treated, and of which the Dr. had but little hopes of cure, had administered to it, by mistake, a tea-spoonful of Fowler's solution. The child vomited soon after, seemed to suffer great pain in its bowels, and on the following day commenced to purge blood. It was not seen by a physician until two days after, and then mucilaginous drinks constituted the treatment. In a few days it began to improve, and recovered from the effects of the poison and from the disease at the same time. Dr. Chambers says, "*Similia similibus curantur* is the only way I can explain the beneficial effects of the poison upon the previous disease." If the cure was effected upon Homœopathic principles, it must be admitted that the dose was not in accordance with Homœopathic practice.

Hypophosphites in Phthisis.—In the *Medical Press* for January 14th, is published a letter from Dr. J. J. Campbell, of Brooklyn, to Dr. J. Winchester, reporting the effects of the hypophosphites of lime and soda in his own case. The night-sweats soon ceased to trouble, and the nervous system so improved as to permit sound and refreshing sleep. He says, "When I commenced the use of this remedy, five weeks ago, I weighed only 147 lbs.; now I weigh 161 lbs., a slight increase over my usual weight. My appetite is good, I sleep well, and I feel as if I were going to live in spite of the formation of a cavity in the upper portion of my right lung." This is certainly an encouraging result of the new remedy. The hypophosphites are much more pleasant to take than cod-liver oil, and we hope the effects following its use may be a still more important improvement.

Gastrotomy.—Some of our readers may remember that about five years ago Dr. John Bell, of Wapello, Iowa, reported, in the *Iowa Medical and Surgical Journal*, the extraction of a bar of lead from the stomach—the case being operated upon by himself, and resulting in recovery. The report of the case is reproduced in the *Boston Medical and Surgical Journal* for January 19th. The bar of lead was $10\frac{3}{4}$ inches long, and weighed $9\frac{1}{4}$ ounces. The incision into the stomach was made on the left anterior side, and about parallel with the pylorus. The patient made a good recovery, and was discharged on the 15th day after the operation.

Iodide of Potassium in Diseases of the Brain in Children.—In the

Boston Medical and Surgical Journal for January 19th, is an article upon the above subject, by John Coldstream, M.D., &c, copied from the *Edinburgh Medical and Surgical Journal*. Dr. Coldstream says that for more than twenty years he has used the iodide of potassium in brain disturbances of children, particularly in hydrocephalus. He says, "The results I have obtained have been so much more decidedly favorable than those which I had been accustomed to see under the employment of depletion, calomel, and purgatives, that I have been surprised to find comparatively few references to the treatment of diseases of the head by this agent in the more recent works on the practice of medicine. I have met with but a small number of practitioners who seem to recognize it as a remedy of marked efficacy." Following the above remarks, Dr. Coldstream makes allusion to, and quotes the opinions of those who have spoken well of this remedy in this class of diseases.

In the summer of 1849, and consequently about eleven years ago, we commenced the treatment of a case that we diagnosticated to be one of scrofulous meningitis, in its early stages. The case recovered, and remains well up to the present time. We afterwards treated other cases in a similar manner, it is true not always with the same good results, but, at least, successful in the majority.

We were not then aware that any other had advised this remedy in such cases. True, we were aware that authors had recommended it, and reported favorable results from its use in acute and chronic hydrocephalus. But we were not aware that it was advised as an anti-inflammatory remedy in the subjugation of meningitis of a scrofulous character. Our readers are all, doubtless, conscious of the dissimilarity between meningitis and hydrocephalus, though the former often ends fatally in the latter condition. All the authorities that had fallen under our observation had recommended bloodletting, purgatives, mercurials, &c., in meningitis, of whatever form. In the *Philadelphia Medical Examiner* for March, 1853, we had an article upon *scrofulous meningitis*, and its treatment with the iodide of potassium. In the *Northern Lancet* for 1853 we had two articles; and in the *MONTHLY* for January, 1856, we had a more elaborate article upon the same subject; while Dr. C. V. W. Burton reports in the *MONTHLY* for April, 1857, five cases treated in the same manner. We mention these facts simply because Dr. Coldstream has made no allusion to either of these papers.

Dr. Coldstream says, "In cases of convulsions from teething, which, amongst ill-fed children, living in badly-aired localities, are not unfrequently followed by hydrocephalus, I have used the medicine with

much satisfaction." We have often made use of the remedy to allay cerebro-spinal excitement with satisfactory results; but, in the circumstances indicated above, we should expect to render the medication much more efficient by the addition of quinine and asafœtida. Lately we have seen some rather surprising results following the use of the syrup of the hypophosphites under the same circumstances.

Ovariectomy.—Before the Pathological Society of London, as per report of proceedings in the *London Lancet* for January, (American reprint,) Dr. Spencer Wells said he had removed *nine* ovarian tumors since the last meeting of the Society. Five of these cases are reported, and the balance promised at a subsequent meeting. Of the five reported, but one died from the effects of the operation. If these are an average of the nine, the results are most satisfactory, and truly remarkable.

These cases and the results are more noteworthy, as most trans-Atlantic surgeons have regarded the operation without favor. Some distinguished French surgeons in particular, have unqualifiedly condemned it. We specify but one instance: M. Velpeau condemns the operation, and says he does not envy his American brethren their practice of ovariectomy. We are certainly glad to learn that Spencer Wells, of London, is operating with such boldness and success. We hope that many more fair unfortunates may find new hope, and a continuance of life in the operation.

In the *Dublin Quarterly Journal*, for Nov., 1859, this same Dr. Wells has an article of much merit upon the subject of ovariectomy, and the means of diminishing the mortality after the operation. Extracts from this article are copied into the January issue of *Braithwaite's Retrospect*. Dr. Wells considers the ligature, and the sloughing of the stump, within the abdominal cavity, the most frequent causes of death, after the operation. To avoid this, he says, "In cases where the peduncle is long, this danger can be avoided by fixing the stump outside the wound; but where the peduncle is short, the *écraseur* offers evident advantages." In regard to the time of the operation, Dr. Wells makes one remark that perhaps conflicts with the generally received opinion in this country. He says, "It is remarkable that in all the successful cases I have related, the disease was in a very advanced stage; while in the first fatal case it was in a much earlier period of development, and the general health comparatively little injured; but this point again requires more extended inquiry." Dr. Wells is greatly in favor of the use of anæsthetics; the good effects of which he thinks must far outweigh any occasional ill

consequences. All the details of the operation and the treatment are given with such minuteness by Dr. Wells, and his results are so satisfactory, that his article should be read by all contemplating the operation. We would gladly make lengthy extracts, but our space, or rather want of space, will not permit, and we shall probably do a better work by thus calling attention to the original paper. Dr. Wells has but little or no confidence in palliative treatment; yet he does not propose rash extirpation. He says, "We do not propose to perform ovariectomy in a case where a woman, if left alone, would probably live in tolerable comfort for several years. We let *her* alone, and do the little we can to increase her comfort. The cases in which we incur the heavy responsibility of performing a dangerous operation, are those in which the patient *must* take her choice, on the one hand, between the risk attendant on such an operation, with a hope of a perfect cure, if all go well; and on the other, a life of suffering, to be terminated, at no distant date, by a miserable death."

Of these cases, Dr. West says, "We come to the sick-chamber day by day, to be idle spectators of a sad ceremony, and leave it humbled by the consciousness of the narrow limits which circumscribe the resources of our art." Dr. Wells says, "We have all seen the poor creatures he so eloquently describes, fading hopelessly away. But the resources of our art are not so limited as he would imply. We may be something more than idle spectators of a death-bed. We have a resource to offer—hazardous, it is true—but one which has in many cases been crowned by a complete and brilliant success." The question of operation is fairly met in the following: "To him who asks, 'How dare I advise an operation we know to be so dangerous?' I answer, How dare you leave the poor woman to die without an effort to save her?"

Before concluding this rather random article on ovariectomy, we wish to refer to one other matter, in, we trust, not inappropriate connection. Many an operation has been commenced and abandoned because of frightful-looking adhesions. The incision has been made, thus exposing the patient to all the risks of peritonitis, and the operation cowardly abandoned; the patient left in the hopeless depression of despair, and the almost certainty of a miserable death. J. Baker Brown, of London—and higher authority cannot well be found—said before the London Medico-Chirurgical Society, he believed them to offer no objection. We quote from a report of the Society's proceedings, in the *London Lancet*, for Feb. 19th, 1859: "The question of adhesions in this disease was one which had led many to consider their

existence as opposed to the completion of the operation. He (Dr. Brown) believed, and he was borne out by the great experience of Dr. Clay, that they offered no objection to the operation; indeed, it was doubtful if the peritoneum had not been so thoroughly altered from its normal character, as to be less prone to inflammation on that very account." The adhesions, however, should never be cut, but always torn through.

We conclude with an important and truthful remark of Dr. Brown: "In ovariectomy, a careful after-treatment is of as much importance as a correct diagnosis."

Diphtheria.—In the January issue of *Braithwaite's Retrospect*, the views of several distinguished physicians upon this disease are collected from trans-Atlantic journals. We shall briefly give a few of the more important plans of treatment, differing though they do in some particulars. George Bottomley, Esq., Croydon, says, "The treatment I adopted in all the cases under my care was as follows: for *children*,

R.—Solutionis chlorinii,	℥ss.
Syrupi simplici,	℥ss.
Aquæ distillatæ, ad.	℥vj.

M. Fiat gargarisma sæpe utendum.

R.—Solutionis chlorinii,	gtt. iv.
Syrup. aurantii,	℥j.
Aquæ distillatæ, ad.	℥ss.

M. Fiat haustus 2ndâ quâque horâ sumendus.

The dose was increased according to age. Calomel was given in doses of one grain and upward, according to age. The diet, too, consisted of concentrated jellies, strong beef-tea, wine, &c."

Similar to the above, is the treatment employed by J. C. S. Jennings, Esq., Malmesbury. He says, "The plan I have invariably adopted, regardless of sex or age, or incubation of disease, has been to give an active emetic of antimonial wine, from half an ounce to an ounce, according to age; to freely cauterize the throat with solid nitrate of silver; to have a mustard poultice applied from ear to ear; the feet and legs plunged in a hot bath, and the patient confined to bed."

After the operation of the emetic, a cathartic of calomel and comp. extract colocynth was given, and four hours after the following mixture was ordered:

"R.—Quinæ disulph.,	℥ss.
Potassæ chloratis,	℥j.
Acidi hydrochlorici diluti,	℥ss.
Aquæ.,	℥viij.

M.—Fiat mistura ejus sumatur par sexta 4tis horis.

A gargle of chlorine solution was directed to be frequently prepared, by impregnating water as much as can be borne with the proto-oxide of chlorine, generated from two parts of chlorate of potass, one of hydrochloric acid and one of water, and the fauces to be sponged out frequently with the same."

C. Swaby Smith, Esq., Burbage, Wiltshire, says, "On first seeing my patient, I apply the strong solution of chlorinated soda to the fauces, and then follow up my treatment by ordering a sinapism to the throat; a gargle, composed of solution of chlorinated soda, two ounces; tincture of myrrh, two drachms; water, six ounces; to be used every half hour, and in cases where the children are too young to gargle, I order the throat to be frequently washed with the same mixture by means of a piece of sponge. Internally, I give to an adult, (of course varying the dose according to my patient's age,) chlorate of potash, two drachms; dilute nitric acid, three drachms; solution of cinchona, (Battley's,) one drachm; water, to six ounces; the sixth part to be taken every two hours. And in cases where there is much pain in the limbs, I generally add a few minims of the tincture of colchicum, which addition has proved decidedly advantageous; the diet to consist of strong beef-tea, port wine, &c.; in short, all the nourishment the patient can take."

Dr. J. S. Bristow, Southwark, says, "It seems to me most important that stimulants, combined with nourishment, should be commenced with early, and should be systematically persisted in." * * * "I, for one, disapprove of the application to the diseased surface of strong caustics and escharotics, and should prefer the employment in all cases of mild detergent gargles."

Thomas Heckstall Smith, Esq., on the contrary, recommends a strong solution of nitrate of silver to the fauces. Besides this, he says, "the treatment consists of bark, ammonia, vegetable acids, abundance of wine, beef-tea, &c., but chiefly gallic acid, in full doses." * * * "But of all the medicines that may present themselves for our choice, there is one far superior, in my experience, to all others, and upon which I indeed chiefly rely: tincture of sesquichloride of iron." This preparation of iron, with wine in large quantities, is also the favorite treatment of Dr. Ranking.

PROCEEDINGS OF SOCIETIES.

Annual Meeting of the New York State Medical Society.

The Annual Meeting of the New York State Medical Society convened in the Common Council Chamber, at the City Hall, Albany, February 7, at 11 o'clock, A. M.

The Society was called to order by the President, B. Fordyce Barker, who addressed the members.

Delegates in attendance then presented their credentials, which were referred to the Committee on Credentials, consisting of Drs. Percy, Willard and Hoff.

DR. BRINSMADE offered the following resolution, which was adopted:

Resolved, That hereafter all physicians who may be invited to take part in the deliberations of the Society must be proposed by the Committee on Credentials.

The President announced the following Committee on Nominations:

1st District—Dr. E. Harris; 2d, Dr. Wm. Govan; 3d, Dr. Mason F. Cogswell; 4th, Dr. Samuel Shumway; 5th, Dr. Wm. Taylor; 6th, Dr. Geo. W. Bradford; 7th, Dr. ——— Cook; 8th, Dr. ——— Mack.

DR. TAYLOR offered a resolution that a copy of the Transactions of the Society be sent by the Secretary to each member of the Society. Adopted.

DR. BLATCHFORD, from the committee appointed at the last Annual Meeting of the Society, on the subject of the "Second Degree of Medicine," presented quite a lengthy report, and after reporting progress, asked to be continued, which was granted.

DR. C. B. COVENTRY, from the committee appointed at the last Annual Meeting, under a resolution "that it is expedient to establish a Commission of Lunacy," and to report at this meeting the best method of effecting the object, presented their report and offered the following resolutions:

Resolved, That a petition from the Society, signed by the President and Secretary, be presented to the Legislature, in favor of the appointment of a Commission of Lunacy, in accordance with the former resolution of the Society.

Resolved, That a committee of ——— be appointed to confer with the committee of the Senate on the subject of such appointment.

Resolved, That the members of the State Medical Society, so far as practicable, confer with the members of the Legislature from their respective districts, and urge the necessity of the measure to their favorable consideration.

The report was accepted, and the resolutions set down for discussion on Wednesday morning.

DR. BRINSMADE offered the following preamble and resolution:

Whereas, The American Medical Association, at its last Annual Meeting, has recommended several subjects of importance to the consideration of State and County Medical Societies: Therefore,

Resolved, That a committee of three be appointed to examine these resolutions of the central association, and report to this Society, as early as convenient, what action, if any, may be necessary.

Adopted; and Drs. Brinsmade, Van Dyck, and Wm. Taylor were appointed such committee.

The Secretary announced a communication from the American Medical Association, on the subject of "Criminal Abortion," which was referred to the last-named committee.

A motion was made to permit Dr. Bly, of Rochester, to exhibit an artificial leg.

Objections were offered to taking up the time of the Society, thus early, in this manner, and permission was refused.

DRS. SANDERS, COATES, and BISSELL were appointed a committee to invite the Governor and the medical members of the Legislature to attend the sessions of the Society.

DR. STURTEVANT then read a paper on "Hypodermic Medication," which was received and referred to the Publication Committee, and the thanks of the Society were returned to the author.

An invitation was received from Gov. Morgan, inviting the officers and members of the Society to visit the Executive Mansion on Wednesday evening. Accepted.

DR. F. J. D'AVIGNON read a paper on "Fracture of the lower third of the femur; two years afterwards non-union of the bones," &c. Referred to Publication Committee.

AFTERNOON SESSION.

The Society reconvened at 3.30 P. M.

A communication was received from the Medical Society of Chenango County; also, one from the Madison County Society; also, one from the Chemung County Society. Referred to the Publication Committee.

DR. S. D. WILLARD presented a biographical notice of Joel Edwin Hawley, M.D. Same reference.

The Secretary presented an obituary notice of Jonathan Purdy, M.D., by Dr. Geo. Burr; also a biographical memoir of Silas West, M.D., by Dr. Geo. Burr. Same reference.

The report of the Committee on Medical and Surgical Statistics was read by the Secretary, accepted, and the committee continued.

The Secretary read a letter from Dr. J. H. Griscom, announcing that the Common Council of the City of New York had kindly presented to him, for distribution among the members of the Society in attendance, one hundred copies of the "Report of the Proceedings and Debates of the 3d National Quarantine and Sanitary Convention."

The thanks of the Society were voted to Dr. Griscom and the authorities of New York.

DR. S. R. PERCY presented "The Transactions of the New York Academy of Medicine," vol. 2, part 4th, containing the report of the Committee on City Milk.

DR. FINNELL moved that it be referred to the Publication Committee. Adopted.

The Secretary presented the Transactions of the Medical Societies of the States of New Jersey, New Hampshire, Tennessee and Connecticut, for the year 1859.

DR. JOHN BALL presented a paper on "The Extirpation of the Eye." Referred to the Publication Committee.

DR. ARMSTRONG presented a memoir of Dr. Backus, which was referred to the same committee.

DR. E. W. ARMSTRONG read a paper on "Observations on Medical Prosecutions." Referred.

DR. MASON read a communication from the Kings County Medical Society, being a history of measures adopted by it for the increase and diffusion of medical knowledge amongst its members, and of its attempts to add to the general fund of professional information. Referred to Publication Committee.

The Secretary presented from Dr. Silas Durkee his Treatise on Gonorrhœa and Syphilis, dedicated to Dr. Thomas C. Brinsmade, late President of the Society. Vote of thanks returned.

DR. CORLIES read an interesting paper on "Tumors." Referred to Publication Committee.

DR. S. D. WILLARD read a paper entitled "Gun-Shot Wound within the Cavity of the Thorax." Same reference.

DR. CHARLES BARROWS read a paper descriptive of "A Case of Direct Inguinal Hernia." Same reference.

Adjourned until Wednesday morning, at 10 o'clock.

SECOND DAY.

The Society met at 10 o'clock yesterday morning.

The minutes were read and approved.

DR. GRISCOM said that he rose for the double purpose of correcting

the minutes and retrieving the injustice done to a worthy member of the Society. He alluded to the action of the Society in adopting a resolution striking from the minutes all record of a paper read by Dr. Benjamin Lee. It was stated that the gentleman was interested in the article which he had brought before the Society, but he was assured this was erroneous, and it was doing great injustice to Dr. Lee to treat his paper in this manner. He therefore moved that the minutes be amended so as to read, "The reading of the paper was suspended, and the paper referred to the Publication Committee."

DR. McNULTY objected to the motion of Dr. Griscom, and contended that it was not in order, unless a motion to reconsider was first made.

The Secretary read an explanatory letter from Dr. Lee.

DR. MASON remarked that he had intended to bring the subject before the Society, as he was convinced injustice had been done Dr. Lee. At the proper time he conceived that it would be just to refer the paper to the Publication Committee. This could be done without amending the minutes.

The Chair decided that the motion of Dr. Griscom was in order.

DR. B. P. STAATS appealed from the decision of the Chair.

The Society sustained the Chair by a decided vote.

The question then recurred upon Dr. Griscom's motion to amend the minutes, and it was adopted, and the minutes were so amended.

The resolutions relative to establishing a Commission of Lunacy (as published yesterday) were then read.

DR. B. P. STAATS said that last year he had voted for the appointment of the committee who reported these resolutions, but he now had serious doubts as to the policy of the movement. We had had Inspectors and Commissioners for various purposes, but they had failed to satisfy the public. As the law now stands, it provides for an examination by two respectable physicians, and on their certificate that the patient is in a state of mind to render him unfit to be at liberty, he is committed by magistrates to the County Poor-House or Insane Hospital. Those physicians, generally speaking, know the patient, and are qualified to pass upon his condition. This was a fair and summary manner of disposing of him. He did not believe he would be safer in the hands of one Commissioner than under the present arrangement. More than one-half the lunatics are paupers. The expense of the Commission, besides the delay it would occasion in passing upon cases of lunacy, would be very great. He concluded by saying that he did not believe officers of this kind were needed.

DR. COATES said that Dr. Staats's remarks were very appropriate,

and if that was all the resolutions contemplated, they might better not have been originated. The examination of cases as alluded to by Dr. Staats would be but a small portion of the business devolving on this Commission. The drawer of the resolutions had in his mind views more extensive, and if the Commission should be appointed, such cases as alluded to by Dr. Staats would be left where they are now. But surrounded by laws as we are, that govern matters without, and laws within that govern mind, it seems to be necessary to legalize and systematize the matter, so that the unfortunate claimants for care can be reached and looked after.

It may be the duty of this Commission to examine alms-houses, and look up this class of beings, and have them cared for in a different manner than they now are. They are gathered together in every poor-house, and very little is done for them. This Commission *could* do something for them. But there would be a branch of business for this Commission still different. It would be the examination of insane criminals. The Governor had, last year, been called upon to examine cases of this character, and was compelled to appoint a special commission to inquire into the alleged lunacy of certain persons charged with crimes. These Commissions had disposed of the matter in a different way than a regular legalized Commission would have done.

Dr. Coates then alluded particularly to the causes above referred to. It seemed necessary to systematize this matter, and he did not see how it could be done without legislation. If this thing is to be carried out, there are some points proper to be discussed here, but for the present he would defer further remarks.

Dr. BISSELL favored the adoption of the resolutions. This Commission would be appointed more particularly to inquire into the condition of lunatics in poor-houses and prisons, and ascertain who need the care and protection of the State. This is what the resolutions contemplate.

Dr. STURTEVANT said he had been engaged for the past ten years in the Oneida Alms-House, and could appreciate the value of a Commission of Lunacy. He was strongly in favor of the adoption of these resolutions.

Dr. SANDERS concurred with Dr. Staats as far as he went, but took a wider range. He was in favor of the resolutions, and, in case the Commission was appointed, hoped it would look into our lunatic asylums.

Dr. COVENTRY said Dr. Coates had presented some of the considerations that induced the presentation of these resolutions. Having been placed on the committee appointed at the last annual meeting to consider this subject, he felt bound to make a report, and after

consultation with citizens in different sections of the State, both medical and otherwise, he was satisfied that something should be done for the unfortunate class of whom the Commission would have the care. But a small portion of the insane of the State find accommodation in the asylums—probably not one-half. Large numbers were congregated in the alms-houses throughout the State, and he asked where is the protection offered them by the State in these cases? Dr. Staats had entirely mistaken the objects of this proposed Commission. Its object, as set forth in the report, is, in the first place, to examine into the condition of the insane persons, wherever found in the State; and in the second place, and more particularly, to ascertain the condition of the insane, and report to the Legislature whether they are kindly taken care of. In England, they were finally driven to the necessity of applying for the appointment of a commission, and it worked admirably.

In addition to what has already been said of the duties of the Commission, they would have other and important labors to perform. Any person who may have attended criminal trials, where the plea of insanity is set up, knows the farce that is gone through with. He attended trials for weeks, when, on both sides, a large amount of testimony had been offered as to the insanity of the criminals, and when the trial had been concluded, the judge told the jury that twelve gentlemen had been called on either side, leaving it impossible for a jury to pass upon the question. Now, if a Commission should hear the testimony and then give its evidence, it is presumed it would have some influence with the court and jury. As it is now, it must be mortifying to all to see the way the subject is treated.

Another circumstance is, where Executive clemency is claimed or asked on the ground of insanity. Governor Morgan had asked for an appropriation for the purpose of a Commission. It is the course pursued by nearly all the governments of Europe. I am aware it would be attended with some expense; but, compared with the care and attention it would secure to the insane, this would amount to very little.

DR. WILBUR favored the adoption of the resolutions, and related to the Society, briefly, accounts of his visits to some of the alms-houses of the State, showing the wretched condition of the insane poor of the State. Unless some Commission should be appointed, he could not see how the attention of the public could be called to the retrograde movement of removing insane patients from the lunatic asylums to the county poor-houses.

DR. COATES said the only difficulty in the way was the manner of the appointment of this Commission. It would be well, if practicable, to empower this body to make such appointment. This would secure the appointment without prejudice or political influence.

DR. COVENTRY said a petition on this subject had already been presented to the Senate, and referred to the Medical Committee of that body. The number of Commissioners, and the manner of their appointment, would be embodied in the bill, and the duty of framing it would devolve on that committee. He thought the less we meddle with legislation the better we should be off, excepting, however, to recommend measures conducive to the public health and good.

DR. PARKHURST favored the adoption of the resolutions, and he deemed it necessary for the care and protection of the insane.

The question was then taken on the resolutions, and they were adopted.

The number of the committee was fixed at five, and the Chair appointed Drs. Coventry, Bradford, Coates, Mason, and Sanders such committee.

DR. SQUIBB then read a communication from the Kings County Society, entitled "Notes upon New Remedies."

A motion to return the thanks of the Society to its author was unanimously adopted, and the paper referred to the Publication Committee.

The Secretary presented a communication from the Medical Society of Schuyler County. Referred to Publication Committee.

DR. ORDRONNAUX next read a memorial from the Queens County Society, relative to the laws regulating the practice of physic and surgery. Accompanying it was a report made to the Queens County Society, on the subject, by Dr. John Ordronnaux, being a legal opinion. Referred to the Publication Committee.

DR. GOODRICH, from the committee appointed at the last meeting to inquire into the subject of "Anæsthetic Agency, its Origin, its Authorship, and its first Introduction into Medical and Surgical Practice in the United States," presented an elaborate report, and concluded by awarding to Dr. Wells the credit of being the discoverer of anæsthetic agency.

The report was accepted, and referred to the Publication Committee.

DR. STAATS moved the adoption of the report.

DR. GRISCOM remarked, that long before Dr. Wells was born, Anæsthesia had been discovered, and that to Humphrey Davy belonged the

credit for its discovery, if to any one. Dr. Wells did not discover the idea; he merely took it up and carried it forward. He claimed that Drs. Morton and Wells stood upon the same platform, and he was opposed to the Society saying that the claim of originality belonged to either of them.

DR. JONES explained the connection of Drs. Wells, Morton, and Jackson with this subject, and thought the Society had better not have anything to do with the matter.

DR. BISSELL moved that the whole subject be laid on the table indefinitely. Adopted.

DR. PARKER, from the committee appointed at the last meeting to examine certain pharmaceutical preparations, presented their report, which was adopted, and referred to Publication Committee.

DR. PERCY read a paper on "Pharmaceutical Preparations," which was referred to the Publication Committee.

AFTERNOON SESSION.

The Society reconvened at 3½ o'clock.

DR. BRINSMADE, from the committee appointed to consider the recommendations of the American Medical Association on several subjects of importance, presented a report, accompanied by the following resolutions:

ON THE SUBJECT OF CRIMINAL ABORTIONS.

Resolved, That this Society cordially approves of the action of the American Medical Association in its efforts to exhibit the extent of the evils resulting from the procuring of criminal abortions, and of the means which are adopted to prevent its commission, and cheerfully comply with the request to a "zealous co-operation" for the furtherance of more stringent legislation, in regard to this most destructive and revolting crime, committed almost with impunity, and with appalling frequency.

Resolved, That a committee of three be appointed to present the memorial of the President and Secretaries of the American Medical Association, which has been read, to the Legislature of the State, at its present session.

The resolutions were adopted, and Drs. Staats, Armsby, and Townsend were appointed the committee.

ON THE NEW YORK STATE INEBRIATE ASYLUM.

Whereas, In the opinion of this Society, there is no hospital or asylum in our country so well calculated to relieve so much suffering and prevent so much insanity, idiocy, and death, as the New York

Inebriate Asylum, now in course of construction at Binghamton, where founded: Therefore,

Resolved, That this Society most earnestly recommend to the Legislature of the State of New York the importance of appropriating a sufficient sum of money for the immediate completion of the Inebriate Asylum.

Resolved, That a committee of three be appointed to present this action of the Society to the attention of the Legislature of the State, now in session, and to use their influence to obtain an enactment in accordance with the above resolution.

The resolutions were adopted, and Drs. Blatchford, March, and Quackenbush were appointed such committee.

DR. ORDRONNAUX offered the following resolution, which was adopted:

Resolved, That a committee of five be appointed to report upon the feasibility of amending the present laws of this State regulating the practice of physic and surgery; and if so, in what way.

On this committee Drs. Ordronaux, Jones, Mason, Willard, and Strew were appointed.

DR. COATES offered a resolution that a committee of three be appointed to report upon the subjects presented in the Inaugural Address of the President, which was adopted, and Drs. Coates, Griscom, and E. H. Parker were appointed such committee.

DR. BALL offered the following preamble and resolution:

Whereas, In view of the extensive adulteration of drugs which are sometimes sold by apothecaries, resulting often in great damage to the patient, and disappointment to the physician:

Resolved, That a committee of five be appointed by the Chair, of which Dr. Squibb shall be chairman, to report, at the next meeting of this Society, some measures calculated to correct this growing evil.

Adopted, and Drs. Squibb, Ball, Joel Foster, Percy, and Husted were appointed such committee.

DR. SANDERS then read a paper on "A Case of Insanity."

At the conclusion of its reading a motion was made to lay it on the table, which was carried.

A motion to reconsider the vote was lost.

DR. SANDERS then requested permission to withdraw the paper, which was granted.

DR. WILLIAM TAYLOR offered the following resolution:

Resolved, That a committee of three be appointed to present to the Legislature the subject of providing by law for a more general vaccination in this State, and that the report made by a committee to this Society, at its session of 1859, and the action of the Society thereupon, be communicated to the Legislature, with the request that a

law be passed at its present session in conformity with the suggestions contained in said report.

Adopted, and Drs. William Taylor, Boyd, and Vanderpoel were appointed such committee.

The Secretary presented the following papers:

"A Case of Gun-shot Wound, the Ball passing through the Chest entire, and escaping from the Back," by N. C. Husted, of New York City.

"Facial Paralysis," by F. Everts, of Oswego.

Referred to Publication Committee.

The Society then adjourned until Thursday morning, at 9 o'clock.

THIRD DAY.

The Society was called to order at 9 o'clock, A. M.

The minutes were read and approved.

DR. PARKER, from the Committee on the President's Address, presented the following resolutions:

Resolved, That a committee of three be appointed by the President to represent this Society in the Medical Convention, for the revision of the Pharmacopœia, to be held at Washington, D. C., on the first Wednesday of May next, and that this committee be instructed to act in accordance with the recommendations of the President's Inaugural.

Adopted; and Drs. Squibb, Howard Townsend, and Caleb Green were appointed such committee.

Resolved, That a committee of five be appointed by the Chair to take into consideration so much of the President's Address as refers to a Topographical and Hydrographical Survey of the State, with reference to systematic drainage, as a hygienic measure, and to report at the next session of the Society.

Adopted; and Drs. Harris, Orton, Bradford, Seymour and Hunt were appointed such committee.

DR. J. V. P. QUACKENBUSH, Treasurer of the Society, made his annual report, which was referred to a committee composed of Drs. Mason, Beattie and Bradford.

DR. HOFF presented a paper from Alfred Mercer, M.D., read before the Syracuse Medical Association, entitled "Prevention, Contagion, and Diagnosis of Small-Pox." Referred to Publication Committee.

DR. A. WILLARD presented a biographical notice of Levi Farr, M.D., of Greene, Chenango County. Referred to Publication Committee.

DR. MASON, from the committee to examine the Treasurer's books,

reported that they had compared them with his vouchers, and that they find them correct. Report accepted.

DR. COVENTRY, from the Committee on Nominations, presented the following report:

President—DANIEL T. JONES, of Onondaga County.

Vice-President—E. H. Parker, Poughkeepsie.

Secretary—Sylvester D. Willard, Albany.

Treasurer—J. V. P. Quackenbush, Albany.

Publication Committee—Thomas Hun, S. D. Willard, and Howard Townsend.

The committee also reported upon the nominations to the various committees and delegates to the American Medical Association.

The committee recommended for the honorary degree of medicine the following persons: Francis J. D'Avignon, Clinton Co.; Harrison Teller, Brooklyn; Peter Moulton, New Rochelle.

The report of the committee was accepted, and the nominees, as presented by the committee, were elected to the respective positions for which they were named.

DR. McNULTY offered a resolution that the Society appoint delegates to attend the National Quarantine and Sanitary Convention, to be held at Boston, in June next. Adopted.

The Chair appointed twenty-five delegates, and by motion the name of the President was added to the list.

DR. FOSTER called attention to a resolution, adopted at the last meeting of the Society, that County Medical Societies furnish the State Society with a complete list of the number of their members in each year, and of those who have died, together with the ages at which death took place.

DR. BRINSMADE presented the list of members, &c., of the Rensselaer County Medical Society. Referred.

DR. BLATCHFORD presented a condensed statement of what has been attempted in the direction of medical education, by the Medical Convention of 1846 and 1847, and by the American Medical Association since its organization in 1847. Referred to Publication Committee.

DR. A. J. DALLAS presented a biographical notice of Dr. Jas. Briggs, of Onondaga. Same reference.

DR. BRINSMADE presented the mortuary record of the City of Troy for nine years, from 1851 to 1859 inclusive; also a record of private practice for the years 1858 and 1859. Same reference.

DR. DANIEL HOLMES, of Canton, Bradford Co., Penn., read a paper

entitled "Fracture of the Neck of the Femur, within the Capsule, with Bony Union, in fourteen weeks and three days."

DR. MARCH offered the following resolutions:

Resolved, That we have listened with great interest to the paper just read by Dr. Holmes, on Inter-Capsular fracture of the neck of the thigh-bone; that the history of the accident, the symptoms, treatment and result, together with the examination of the post-mortem specimen, furnish satisfactory evidence of the existence of a fracture, as claimed by the author; that it was *complete*, not *impacted perfectly within the capsular ligament*, and so firmly united, as not to admit of separation without the use of great violence.

Resolved, That the thanks of the Society be presented to Dr. Holmes for his highly instructive and useful paper; and that he be requested to furnish a copy for publication in the Transactions of the Society.

DRS. PARKER, McNULTY and BRINSMADE objected to the passage of the resolutions, for the reason that the specimen did not settle the disputed point as regards perfect bony union within the capsule, which could not be demonstrated in the specimen without a longitudinal section through the bone, and a careful microscopical examination.

DR. BRINSMADE then offered the following resolution as an amendment:

Resolved, That the paper of Dr. Holmes, with the specimen of the bone, be referred to a committee of three, with Dr. March as Chairman, to report at the next meeting of the Society.

Adopted; and Drs. March, Brinsmade and E. H. Parker were appointed such committee.

DR. FRENCH moved that a committee be appointed to address a letter to the Secretary of each County Medical Society here represented, requesting said Secretary to furnish the names of members of each County Society, and the names and age of all such members who have died for the last five years. Adopted, and Dr. French was appointed such committee.

DR. COVENTRY offered the following resolutions, which were adopted:

Resolved, That the committee appointed to confer with the Medical Committee of the Legislature, on the subject of the appointment of a Commission of Lunacy, be discharged.

Resolved, That a committee of three, residing in the City of Albany, be appointed with authority, if such appointment cannot be effected at the present session of the Legislature, to present the subject early to the next Legislature.

DR. ARMSTRONG offered the following resolution:

Resolved, That the habit of prescribing, by regular physicians, articles of medicine, whether in the form of fluid extracts, sugar-coated pills, patent medicines, or other articles prepared by non-professional

persons, or by persons ignorant of their therapeutical properties, or by persons not recognized by the medical profession as possessing the necessary qualifications, is incompatible with the honor, dignity and best interests of the profession, for the following reasons :

1st. Because the component parts of said medicines cannot be known with certainty.

2d. Because it is doing injustice to a useful class of persons, who, although not identified, are closely connected with the profession, and are justly regarded as auxiliary to its usefulness.

3d. Because it encourages a class of persons in no respect responsible for its honor and integrity.

4th. Because it commits the best interests of the profession to those who endeavor to profit by its sanction and patronage.

5th. Because it affords facilities and encouragement to non-professional persons, wholly incompetent to prescribe for themselves, and thus the profession is sometimes made to aid, by its sanction, the commission of criminal practice.

Adopted.

Resolutions were adopted returning thanks to the retiring officers, and also to the Mayor and Common Council of the City of Albany, for the use of the Common Council Chamber.

The Society then adjourned *sine die*.

Academy of Medicine. Regular Meeting, January 18, 1860. DR. JOHN WATSON, *President*, in the Chair.

A paper, on a New Mode of Arresting Surgical Hæmorrhage, by DR. SIMPSON, of Edinburgh, was read.

In this paper, the various usual methods of controlling the hæmorrhage arising from surgical wounds were first briefly described, and objections made to them. By the new process of acupressure, Dr. Simpson hoped to overcome, in a great measure, all those difficulties, as by it he expected to arrest the hæmorrhage attendant upon surgical wounds, *without leaving permanently any foreign body whatever* in the wound itself.

Dr. Simpson stated that he had tested the effects of acupressure as a means of effectually closing arteries and stanching hæmorrhage first upon the lower animals, and lately in two or three operations on the human subject. The instruments which he proposed should be used for the purpose were slender needles or pins of passive iron, headed with wax or glass, and in other respects also like the hare-lip needles commonly used by surgeons at the present day, but longer

when circumstances require it. They might be coated with silver or zinc on the surface, if such protection were deemed requisite.

At first, Dr. Simpson believed that in using acupressure as a hæmostatic means, it would be necessary to compress the tube of the bleeding artery between two needles, one placed on either side of it. But in his later experiments upon the living as well as the dead body, (as in amputations on the latter, and subsequently injecting tepid water through the arteries, in imitation of the flow of blood,) he had found that the compression of one needle was usually perfectly sufficient to shut up an artery, and that even sometimes, when two or more bleeding points were near, they could be closed simultaneously by the action of one needle or pin. The whole process consists in passing the needle *twice* through the substance of the wound, so as to compress together, and close, by the middle portion of the needle, the tube of the bleeding artery a line or two, or more, on the cardiac side of the bleeding point. The only part of the needle necessarily left exposed on the fresh surface of the wound is the small middle portion of it, which passes over and compresses the arterial tube; and the whole needle is withdrawn on the second or third day, or as soon as the artery is supposed to be adequately closed, thus leaving *nothing* whatever in the shape of a foreign body within the wound or in the tissues composing its sides or flaps. To produce adequate closing pressure upon any arterial tube which it is desired to constrict, the needle must be passed over it so as to compress the tube with sufficient power and force against some resisting body. Such a resisting body will be most frequently found—1st, in the cutaneous walls and component tissues of the wound; 2nd, sometimes in a neighboring bone, against which the artery may be pinned and compressed by the acupressure needle; and 3rd, in a few rare cases it may possibly be found in practice, that a second needle may require to be introduced to serve as a point against which the required compression is to be made. Most commonly the first of these three plans seems perfectly sufficient, and that even in amputation of the thigh. In acting upon this mode, the surgeon may place the tip of the fore-finger of his left hand upon the bleeding mouth of the artery which he intends to compress and close; holding the needle in his right hand, he passes it through the *cutaneous* surface of the flap, and pushes it inward till its point project out to the extent of a few lines on the raw surface of the wound, a little to the right of, and anterior to his finger-tip; he then, by the actions of his right hand upon the head of the needle, turns and directs the needle, so that it makes a bridge as it were

across the site of the tube of the bleeding artery immediately in front of the point of the finger with which he is shutting up its orifice; he next, either with this same fore-finger of the left hand, or with the side of the end of the needle itself, compresses the locality of the bleeding arterial orifice and tube, and then pushes on the needle with his right hand so as to make it *re-enter* the surface of the wound a little to the left side of the artery; and lastly, by pressing the needle farther on in this direction, its point re-emerges through the *cutaneous* surface of the flap, and the site of the tube at the bleeding artery is in this way left pinned down in a compressed state by the arc or bridge of steel passed over it. The needle thus passes first from and through the skin of the flap *inward* to the raw surface of the wound, and after bridging over the site of the artery, it passes secondly from the raw surface of the wound *outward* again to and through the skin. Sometimes the needle will be best passed by the aid of the eye alone, and without guiding its course by the finger-tip applied to the bleeding orifice. It compresses not the arterial tube alone, but the structures also placed over and around the *site* of the tube. When the needle is completely adjusted, all of it that is seen on the surface of the raw wound, and that not necessarily so, is the portion of it passing over the site of the artery, while externally, upon the cutaneous surface of the flap, we have remaining exposed more or less of its two extremities—namely, its point and its head. The rest of it is hidden in the structures of the flap or side of the wound. The degree of pressure required to close effectually the tube of an artery is certainly much less than medical practitioners generally imagine; but in the above proceeding the amount of pressure can be regulated and increased, when required, by the acuteness of the angle at which the needle is introduced and again passed out, the cutaneous and other structures of the flap serving as the resisting medium against which the needle compresses the arterial tube. But if it were ever, perchance, necessary to produce greater compression than can be thus accomplished by the needle alone, this increased pressure could be readily obtained by throwing around the two extremities of the needle exposed cutaneously a figure-of-eight ligature, as in hare-lip, with or without a small compress placed between the arc of the ligature and the skin. The process of the adjustment of the needle is difficult to describe shortly by words, but the whole of it is readily seen and imitated when repeated upon a piece of cloth or leather. We fasten the stalk of a flower in the lapelle of our coat by a pin passed exactly in this manner. To compress a bleeding artery against a bone

is somewhat more complicated, but not much so. In accomplishing it, we have to introduce from the cutaneous surface a long needle through the flap of the wound obliquely to near the site of the artery, and then compressing, with the fingers of the other hand, or with the end of the needle, the part containing the artery against the bone, we make the needle, after passing over this compressed part, and after testing whether it has closed the vessel or not, enter into the tissues beyond, and if necessary even emerge from, the cutaneous surface on the other side at an angle somewhat oblique to that at which it entered; thus taking advantage of the resiliency and resistance of the soft textures to make them push the needle with the necessary degree of compression against the artery and bone. Arteries in particular parts require special adjustments and modifications to compress them against the neighboring bone, which only experience can point out. There is always sufficient soft tissue on either side of the artery for the needle to get a purchase upon, to compress the arterial tube against the bone or other resistant point. In two cases, Dr. S. had found that branch of the internal mammary artery, which so frequently bleeds in the bottom of the wound after excision of the mamma, easily and perfectly closed by a needle passed through the flap to near the artery, then lifted over it, and (after compressing it so as to stop the flow of blood) pushed onward into the tissues beyond. Possibly, in some amputations, an acupressure needle or needles may yet be passed, immediately before the operation, half an inch or so above the proposed site of the amputation line, so as to shut the principal artery or arteries, and render the operation comparatively bloodless. If so, these needles would serve, at one and the same time, the present uses of both tourniquet and arterial ligatures. Perhaps this will be found, in some cases, a simple and effectual means of compressing and closing the artery leading to an aneurism—as the femoral artery, for example, in popliteal aneurism—changing the operation for that disease into a simple process of acupuncture instead of a process of delicate dissection and deligation, when in any case the milder methods of compression, manipulation, and continuous flexion of the limbs fail. It has been hitherto a difficult problem to obstruct the vessels of the ovarian ligament in ovariectomy, without leaving a foreign body, whether clamp or ligature, upon the stalk of the tumor, to ulcerate and slough through it. If the stalk be transfixed and pinned in its whole breadth to the interior of the relaxed abdominal walls, by one or more acupressure needles, passed through these abdominal walls from without, this difficulty may possibly be overcome. That

needles used for the purpose of acupressure, and passed freely through the walls and flaps of wounds, will not be attended by any great degree of disturbance or irritation, is rendered in the highest degree probable by all that we know of the tolerance of living animal tissues to the contact of metallic bodies. Long ago John Hunter pointed out that small shot, needles, pins, &c, when passed into and imbedded in the living body, seldom or never produced any inflammatory action, or none at least beyond the stage of adhesive inflammation, even when lodged for years. Some time ago, when the subject of acupuncture specially attracted the attention of medical men, Cloquet, Pelletan, Poillet, and others, showed that the passage and retention of long acupuncture needles was attended with little or no irritation in the implicated living tissues. The reviewer of their works in the *Edinburgh Medical Journal* for 1827, observes: "It is a remarkable circumstance that the acupuncture needles never cause inflammation in their neighborhood. If they are rudely handled or ruffled by the clothes of the patient, they may produce a little irritation; but if they are properly secured and protected, they may be left in the body for an indefinite length of time without causing any of the effects which usually arise on account of the presence of foreign bodies. In one of M. Cloquet's patients, they were left in the temples for eighteen days; and in cases in which needles have been swallowed, they have remained without causing inflammation for a much longer period. It appears probable, from the facts collected on the subject, that metallic bodies of every kind may remain imbedded in the animal tissues without being productive of injury." All the late observations and experiments upon metallic sutures are confirmatory of the same great pathological law of the tolerance of living tissues for the contact of metallic bodies imbedded within their substance. In the operation for hare-lip, surgeons use needles to keep the lips of the wound approximated, often compressing these needles strongly with their figure-of-eight ligatures, and find this measure the most successful means which they can adopt for accomplishing primary adhesion.

The acupressure of arteries, when compared with the ligature of them, appears, as a means of arresting hæmorrhage, to present various important advantages: 1st. It will be found more easy, simple, and expeditious in its application than the ligature. 2d. The needles in acupressure can scarcely be considered as foreign bodies in the wound, and may always be entirely removed in two or three days, or as soon as the artery is considered closed; whilst the ligatures are true foreign bodies, and cannot be removed till they have ulcerated

through the tied vessels. 3d. The ligature inevitably produces ulceration, suppuration, and gangrene at each arterial point at which it is applied; whilst the closure of arterial tubes by acupressure is not attended by any such severe consequences. 4th. The chances, therefore, of the union of wounds by the first intention should be greater under the arrestment of surgical hæmorrhage by acupressure, than the ligature. 5th. Pyæmia and surgical fever seem not unfrequently to be excited by the unhealthy suppuration, &c., in wounds which are liable to be set up by the presence and irritation of the ligatures. 6th. These dangerous and fatal complications are less likely to be excited by the employment of acupressure, seeing the presence of a metallic needle has not the tendency to create local suppurations and sloughs in the wound, such as occur at the seats of arterial ligatures. And 7th. Hence, under the use of acupressure, we are entitled to expect both—first, that surgical wounds will heal more kindly and close more speedily; and secondly, that surgical operations and injuries will be less frequently attended than at present by surgical fever and pyæmia.

The discussion on diphtheria was then taken up, and continued through this and the following sitting of the Academy, but nothing new was elicited either as regards the pathology or treatment of the disease.

Proceedings of the Buffalo Medical Association. January Meeting, reported by WM. H. BUTLER, M.D., Secretary.

DR. HUTCHINS reported the following case of *Rupture of the Uterus*:

As Dr. Gould is absent, to whom it properly belongs, I will mention a case of rupture of the uterus, which occurred a few days since.

Dr. Gould was called early in the morning, and found a woman about twenty-five years old, the mother of two children, in labor with her third child. There had been no motion for some days. The arm presented. A German woman, who had acted as midwife, had drawn violently on the arm for three or four hours. Dr. Gould immediately attempted to turn, but was unable to do so. He came and requested me to go and assist him. On reaching the patient I also made an attempt to turn, but from the violent contraction of the uterus could not succeed. As I supposed it impossible for any person to turn with such a state of things, I requested Dr. Gould to hand me the perforator which I had carried with me, my hand still being in the vagina, that I might commence the dissection and removal of the fœtus. He

said that he would first prefer a trial by a third person, and left, to get some one else to make the effort. I remained with the woman during his absence, which was about half an hour; soon after he left the woman got on her knees by the side of the bed, and had several very violent pains. Just before his return she got into bed again. Dr. Miner came back with Dr. Gould, and immediately introduced his hand, and turned without any difficulty. After the removal of the foetus, which had been dead for some time, Dr. Miner introduced his hand into the uterus, having been surprised at the want of pains during the delivery of the foetus, and discovered that there was a rupture of the uterus. He passed his hand up into the cavity of the abdomen. After he had withdrawn his hand I introduced mine; found the rupture, and withdrew the placenta. The woman died three days after.

DR. EASTMAN remarked that he had noticed that most of these cases had occurred where a midwife had been in attendance. He had been called in on two occasions where midwives had been first employed, and after difficulty was encountered, a doctor was sent for. One case he was called to see, a few days ago, he found a midwife making violent traction on the arm, which had presented. In this case, owing to the length of time in labor, he had great difficulty in turning the child, but finally did it to the great relief of the woman.

DR. CRONYN had been called to a case where a midwife had preceded him, and found that she, finding a convenient handle protruding—the arm—had pulled on it so hard that it only held by the skin.

Dr. Cronyn also reported a case of labor where the child, after birth, continued to vomit blood. The presentation was the right knee; the doctor pushed the knee gently back, and after a few pains the breech presented, and the woman was rapidly delivered of a healthy female child, nearly asphyxiated, but restored by cold water. The second day after he was requested to see the child, which had been vomiting blood, and continued to vomit when anything was drank for thirty hours, or until death ensued. Every remedy was tried that was thought advisable, in vain. There were no symptoms of cyanosis; the heart and lungs seemed healthy; no cough. The doctor thinks that there must have been at least a pint of blood thrown up during the time the child lived. The case related was rare to Dr. C., and he asked if members had met with cases like it. A post-mortem could not be obtained.

DR. BUTLER stated in relation to the case of rupture of the uterus, reported by Dr. Eastman, that a year ago he had been requested to

make a post-mortem, where a female had died suddenly after turning and delivery. In this case also a midwife had been in attendance for the greater part of the night, and finally sent for a doctor, who turned and delivered. The patient sank, and died a few hours after.

The case was investigated, and on making a post-mortem, Dr. B. found rupture of the uterus upon the right side.

DR. BUTLER related the particulars of a post-mortem he had made at the request of Coroner Randall. The subject was a woman about twenty-seven years old, whose person bore evidences of secondary eruption, with the whole body and intestines loaded with fat. The coats of the stomach were highly inflamed, softened, and it had an alcoholic smell. There were two wounds, as if caused by a knife; one across the lower part of the back, the other between the eighth and ninth ribs of the right side, running obliquely upward into the cavity of the chest. Both wounds had partially glued together, but the finger readily entered the thoracic cavity through the upper wound; and around the internal edge of the cut a rim of plastic lymph was effused. The lung on this side was entirely gone, save a very thin shred close to the mediastinum; and in its place was a mass of thick pus, which was dipped out with a cup. Not even a bronchial tube remained.

He reported the case for the purpose of asking the opinion of members of the Association as to the probability of the entire disorganization of the lung in a person of bad habits, with the fatty degeneration present in this case, in sixteen days. (It appeared in evidence afterwards that the woman lived sixteen days after being stabbed.) The case was interesting in a medico-legal point of view, and this question was in reality of considerable importance in its effect on the accused.

DR. CRONYN had never seen a case precisely like the one related, but saw a patient who was admitted into the Toronto Hospital, and who died a few days after admission. On examination, after death, it was found that the lung on the right side was entirely disorganized and gone. This showed, at least, that a person might live with one lung entirely gone.

REVIEWS AND BIBLIOGRAPHY.

Several notices prepared for this section have been unavoidably deferred.

EDITORIAL AND MISCELLANEOUS.

—The editorial which DR. FLINT has addressed to the subscribers of the *Buffalo Medical Journal* will indicate to the readers of the MONTHLY the union of journals which has been accomplished since our last issue. In completing the consolidation therein referred to, we are materially enlarging the area of our own influence, and adding to the solid elements of our journal. In the accession of DR. FLINT and the collaborators of his journal to the host of good friends who have lent their valuable aid to the establishment of the MONTHLY, we see an abundant cause of congratulation to our readers, as well as to ourselves; and we hope hereafter, by our joint exertions in the field of medical journalism, to merit the continued support of our old friends, and to gain the esteem of our new ones.

To the Subscribers of the New York Monthly Review and Buffalo Medical Journal.—A change in the management of an old and firmly established journal should be a matter of regret, if it be not productive of decided benefit to the subscribers, and through them, to the conductors of the journal. We considered that we were making such a change when we engaged a business man in the publication; and most of all did we anticipate benefit from the removal of the office of publication from the city of Buffalo to the great centre of our country. We looked upon medicine as national, and deemed that place the best for our journal where we would be able to command the most material for making it useful and practical. It was our hope and anticipation, at the commencement of the fifteenth volume, that after our journal had been firmly established, on its own basis, in New York, we would be able to form a union with one of the metropolitan journals, which would be for the good of both. Such a step would be so palpably for the benefit of those who honor us by their good-will, as to need little more than a simple announcement from us, if it had been taken when our engagements for the year had been fulfilled. Circumstances have rendered it necessary that this step should be taken at the present time, and an explanation is therefore demanded on our part.

Our readers will recollect an advertisement which appeared in our October number, for which we apologized, with the assurance that it should never again occur. We had been careful to retain the absolute power of excluding all improper advertisements, holding *ourselves* responsible personally for anything which appeared in any part of the JOURNAL; and we had anticipated that the Buffalo publisher would

see the policy—if he did not realize the degradation of another course—of keeping the JOURNAL pure and unsullied. With that idea, we omitted to inspect all the advertisements before the work went to the bindery, and the objectionable one was thus suffered to appear. We were wrong in supposing that one who advertises quack remedies—female regulating pills, etc.—in the daily press, would be able to make a distinction, unless under compulsion, in favor even of the old BUFFALO MEDICAL JOURNAL. This we became aware of when we forbade the insertion of any more such matter, and especially when our absence from the city was taken advantage of to smuggle in the same offensive circular in the January number. We were in Buffalo at the time of this last occurrence, engaged in the business which has resulted in the change now announced. Before this, we had supposed it possible to continue till the end of the volume under the then existing circumstances; though we saw the necessity of at that time purging the JOURNAL of an element so offensive to us and the profession. Seeing, however, the great injury daily suffered by the JOURNAL, we made up our mind that the publisher must be gotten rid of *at once*; and we therefore have done so. We are sorry to be thus forced to bring the private affairs of the JOURNAL into a place which should only be occupied by scientific matter; but we felt it our duty to let our subscribers know that we had never given up the right to sustain the character of the JOURNAL in all respects. That if our late publisher should in any way attempt to detract from the honor of the JOURNAL, to violate its chastity, we would *turn him out*. That *we* were not to be satisfied with disconnecting ourselves with such a publication as it would then be, but if necessary—and thank Heaven it is not necessary—we would play the part of the Roman father, and the publication should die.

As regards the present aspect of the JOURNAL, we desire to state that Mr. Mathews has no further connection with it whatever; nor is he connected with us in any way, as all business matters are now definitely closed. Mr. Mathews receives the subscriptions that may be paid on the *fourteenth* and *fifteenth* volumes; and our subscribers may look to us to supply them with the three numbers necessary to make the fifteenth volume complete. We do not receive anything from subscribers for the present volume, but at the *commencement of the next volume* subscriptions should be sent to Dr. J. H. DOUGLAS, Editor of the *American Medical Monthly and New York Review*, No. 12 Clinton Place, New York. The JOURNAL will contain eighty pages or more, instead of sixty-four; in consequence of which, no deduction

will be made hereafter for advance payment, making the price \$3 per year, to be paid in advance.

The combined Journal is now issued, edited by Dr. DOUGLAS and ourselves jointly; but, for the benefit of our subscribers, for the next three months, *three numbers* will be paged successively with the numbers of the NEW YORK REVIEW, which they have already received; the cover will remain the same, and they will have a separate index at the end of the volume, as usual. They will receive eighty pages a month, during this time, instead of sixty-four. Our arrangements being necessarily considerably modified, we are compelled to omit this month the lecture of Dr. DALTON. This, however, is only temporary, and their publication will be resumed.

We hope that the arrangements which have been made will be satisfactory to our own subscribers; and we know that they will be benefited by the change. Our list is large, and composed of those who, many of them, have received our monthly issue for fifteen years; we have obligations to such men which cannot be ignored, and we hope and trust that we may always be permitted to fulfill these obligations, and that any change which we make in the JOURNAL may be for the better. To the subscribers of the *American Medical Monthly* we present our humble duty, praying that they may be as well satisfied with our labors as our older friends.

AUSTIN FLINT, JR.

EDITOR OF THE MONTHLY—The following resignation was placed in the hands of the Faculty of the New York Medical College more than two months ago. To prevent any misapprehension that may exist in regard to the step I have taken, I have to ask the favor of the publication of the accompanying letter of resignation in the MONTHLY.

H. G.

To the Faculty of the New York Medical College:

GENTLEMEN—Having put into the hands of the Trustees my resignation of the Chair held by me in the New York Medical College, to take effect at the close of the present term of Lectures, I now resign into your hands the Presidency of the Faculty, also to take effect at the close of this Course.

This step, which I have long contemplated, I feel compelled to take, inasmuch as my laborious professional duties, the duty I owe to a large family, and particularly a due regard for my health, will not allow me to discharge my duties to the College, with satisfaction to myself, or benefit to the School. The present period, moreover, seems a fit time for taking this course. A most efficient and excel-

lent corps of Professors the Trustees have now secured, and the indications of success, and of the future prosperous condition of the School, were never more promising than at the present time.

This step has been taken after mature deliberation, and with much regret at withdrawing from a School with which, from its origin, I have been connected, and over whose Faculty, through a period of ten years, I have had the honor of presiding. But, still more deeply do I regret a separation from colleagues with whom I have passed so many years of pleasant and agreeable intercourse in our mutual endeavors to advance Medical Science.

Wishing you, gentlemen, individually, happiness and prosperity, and earnestly hoping that increased and permanent success may attend the Institution with which you are connected,

I remain, respectfully, your ob't serv't, HORACE GREEN.

NEW YORK, *Jan. 2d*, 1860.

Seventh Annual Report of the Surgeons of the New York Ophthalmic Hospital.—Drs. Stephenson and Garrish, the Attending Surgeons, report ten hundred and ten patients during the year 1859, and over 7,000 since 1852. The following are a list of the operations performed during the last winter, and, in some instances, a number of times, viz: Cataract, Strabismus, Pterygium, Entropium, Ectropium, Trichiasis, Fistula Lachrymalis, Symblepharon, Staphyloma, and Extirpation of the Eye, (after the method of Mr. Critchett, of London;) also, Bowman's Operation for Catheterizing the Nasal Duct, by slitting up the lachrymal canal, with perfect success. The ophthalmic class of students and practitioners in attendance was larger than usual during the last session.

THE AMERICAN MEDICAL ASSOCIATION will hold its Thirteenth Annual Meeting at New Haven, on the *first Tuesday of June*, 1860.

The Secretaries of local Societies, Colleges, and Hospitals, are requested to forward to the undersigned the names of delegates, as soon as they are appointed. STEPHEN G. HUBBARD, M.D., *Secretary*,

New Haven, Ct.

— The annual meeting of the New York State Medical Society, a complete report of the proceedings of which will be found in our pages, was one of unusual interest. The attendance, it is said, was larger than at any previous meeting of the Society. The inaugural address given by Dr. Barker, which we are obliged to omit on account of want of space, was eminently sound, and contained many practical suggestions. The closing remarks of the address, in which he expressed a hope "that the meetings of the session might be distinguished

for the number and value of its papers, for the ability and interest of its discussions, for the wisdom and discrimination of its legislative acts, and for the harmony of feeling and personal friendships which it engenders," was fully realized, and doubtless much of it was due to the exertions of the presiding officer. The forthcoming volume of Transactions will be a very valuable one.

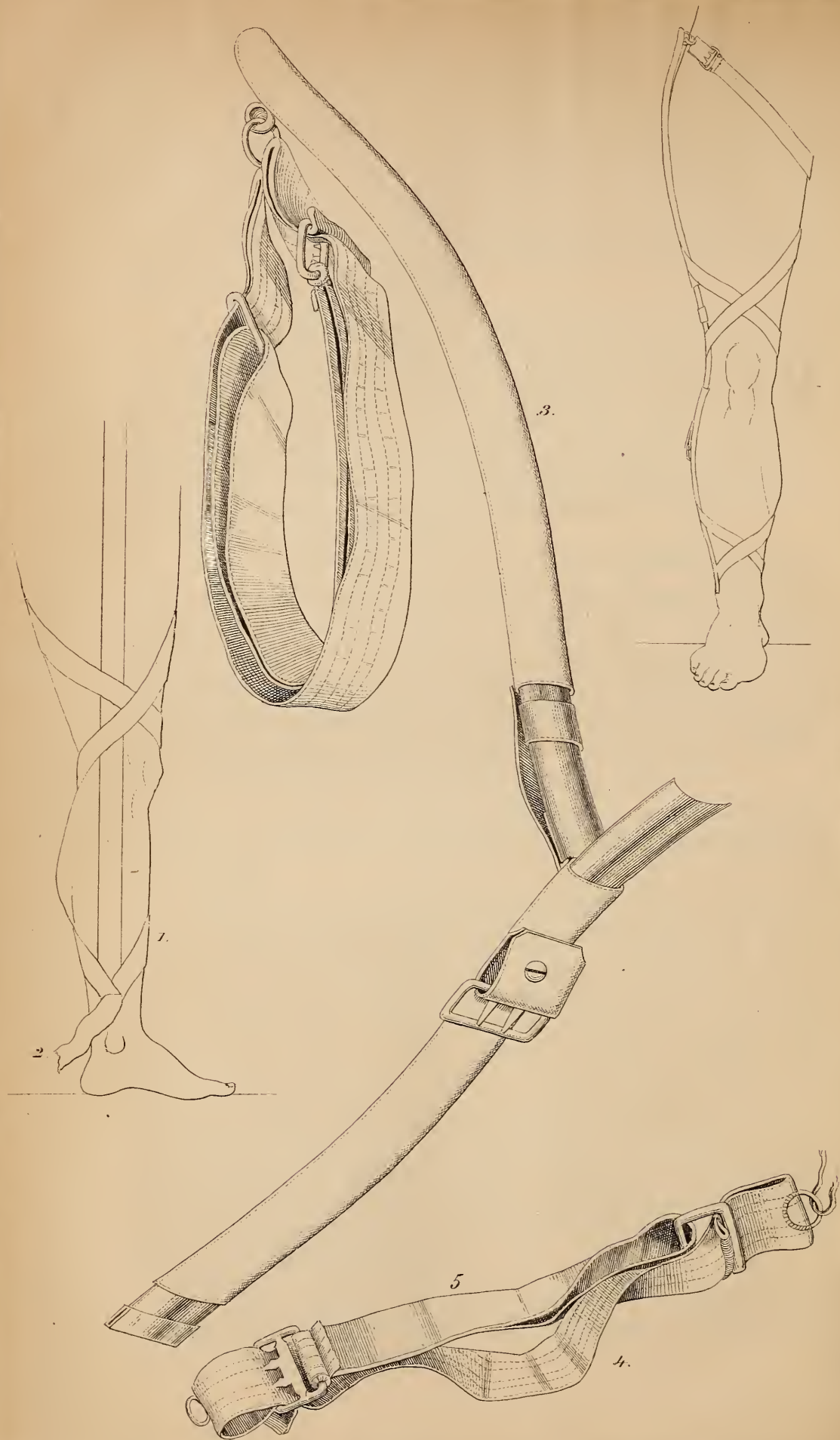
— Two new medical journals have reached us during the last month. One from California, entitled *The San Francisco Medical Press*, and edited by DR. E. S. COOPER, Professor of Anatomy and Surgery in the University of the Pacific. It is to appear every other month, and contains sixty-four pages, at \$2.00 a year. Dr. Cooper is well known, from his frequent contributions to various medical journals this side of the Rocky Mountains, and a journal under his direction cannot fail to give much and varied information.

The other new journal is edited by an old contributor to our own pages, and one who has done much service to the profession by his pen, as former editor to a valued Western medical journal. We are glad to welcome back DR. THOS. W. COLESCOTT to the pleasures of the editorial chair, and sincerely hope its trials may be lightened to him. The journal which he announces is called the *Louisville Medical Journal*, and is to be published monthly, containing sixty-four pages, at \$3.00 a year. The first number gives promise of a valuable series.

— Dr. R. B. TODD, the eminent physiologist and physician, died the 30th of January last, in the 51st year of his life, from hæmorrhage of the stomach.

Dr. Todd was the son of a distinguished surgeon and professor in Dublin. He graduated at Trinity College of that city, went at an early age to London, and joined the College of Physicians. Soon after entering upon the duties of his profession in London he projected a work of great extent and reputation, the "Cyclopædia of Anatomy and Physiology," which was but recently completed. He also, with Mr. Bowman, commenced a work on the "Physiological Anatomy and Physiology of Man," which was also recently completed with the additional aid of Dr. Lionel S. Beale, the extensive and laborious practice into which Dr. Todd had gradually worked not affording sufficient time to devote to those minute investigations the subject demanded, and which had been the pleasure of the earlier and more quiet years of his professional life.

— The *Louisville Medical News* now appears once a month, instead of semi-monthly, and has changed its title accordingly. In every other respect it is the same as before.



H. G. DAVIS' SPLINT FOR HIP DISEASE.

Lith of Snyder, Black & Summ 92 William St. N.Y.

THE AMERICAN MEDICAL MONTHLY.

APRIL, 1860.

ESSAYS, MONOGRAPHS, AND CASES.

Osteo-Plastic Operations. By B. LANGENBECK, Professor of Surgery in the University of Berlin. Translated and communicated by WILLIAM F. HOLCOMB, M.D.

Osteo-Plastic operations are those which have for their purpose the reparation of defects in bone, or the performing of resection in such a manner that the removed portion may be supplied by a *new deposit* of osseous matter.

The reparation of defects in bone may be effected by various operative methods.

I. BY BRINGING TOGETHER AND UNITING THE BORDERS OR EDGES OF THE FISSURES IN BONE.

The closure of fissures in the hard palate is attempted in this manner.

II. BY TRANSPLANTING A NEIGHBORING PORTION OF BONE TO SUPPLY THE DEFECT.

The moving and *engrafting* of the ossa intermaxillaria into the fissure of the processus alveolaris, in double-cleft palate, as accomplished according to Blandin's method, by *cutting through the vomer*; Gensoul's plan of breaking up the union of the intermaxillary bones with the vomer, and my operation of dividing the *cartilago-triangularis*, illustrate this method. Pirogoff's proposed plan of transplanting the calcaneus to the sawed surface of the tibia, after a previous exarticulation of the

foot and the consolidation of both these bones, belongs also to this class.

III.—THE REUNION OF A FRAGMENT OF THE DETACHED BONE.

The first attempts of this kind were made by Percy, who endeavored to supply defects, occasioned by gun-shot wounds in the lower extremities, by engrafting portions of the tibia of an ox. These experiments failed. Von Walther was more fortunate in replacing a piece of cranial bone, trepanned from a man 36 years of age, as the greatest portion of the bony disk healed, while only a small portion exfoliated. The attempt made later by B. Heine, to reunite an excised portion of the rib of a dog, terminated just as unfortunately as the experiments of Percy; and there is reason to doubt the correctness of Von Walther's observations, since portions of bone, which are *set into* or engrafted into others, suffer *erosion* from long contact with the normal fluids from the bone or from pus, very similar to the destruction in caries or exfoliation. In many cases where I have used ivory pins for the purpose of uniting pseudo-arthroses, after three weeks' use, even these were found to have sustained a considerable loss of substance. The end which had been in the bone was rough, as if eroded by caries, and had lost even a third of its circumference. In the case related by Von Walther, the portion of bone which was removed by the trepan, was replaced and allowed to remain three months, may have become reduced in size by a similar process. This subject has lately acquired a new, though only a physiological interest, through the researches of Ollier. (See the work "On the Artificial Production of Bone by Means of Transplantation of the Periosteum, and by Osseous Grafts. By L. Ollier. 1859.) This author (*v.* page 13) engrafted the bones of animals upon those of the same species, (rabbits,) sometimes under the skin of the axilla, and sometimes in cavities formed by the extirpation of a corresponding bone, (*os metatarsi*;) the transplanted bones continued to live and grow in their new home. On account of the greater vulnerability of the human species, and its slight recuperative power, as well as the impossibility of employing corresponding material, it is impossible to make these experiments in operative surgery. But that it is possible, however, to effect reunion in a bone which has been completely separated from its *bony* connections, provided it remains united to the parent bone by the periosteum, is shown by the following case:

CASE.—*Naso-pharyngeal Polypi; Resection of the Processus Nasalis and the Right Os Nasalis; Extirpation of the Polypi; Replacing and Reunion of the resected Bones.*

A healthy boy, of 18 years, was received into the clinic, in whom

the space behind the soft palate was completely filled by two fibrous polypi. The smaller tumor was attached to the vicinity of the *spina nasalis posterior*; and the larger, near the right tuba eustachii; and from it, a prolongation extended into the right nasal cavity, by which it was completely closed. Respiration was difficult, and considerable hæmorrhage had taken place. As it appeared impossible to remove the tumors either through the nasal cavity, or by division of the soft palate and resection of the palate bones through the mouth, I decided to resect the processus nasalis of the superior maxilla, as I had done before in similar cases. (*Vide* Theo. Billroth on Resection of the "Processus Nasalis." *Deutsche Klinik*. 1854.) In the former cases I had only resected and removed the processus nasalis of the superior maxilla. But as, in this case, the bone referred to was not driven forward, I had reason to fear the passage to the pharynx made by its removal would not be wide enough to enable me to reach the tumor. As the *permanent* resection of the right nasal bone would leave a proportionate disfigurement, I decided on trying to replace the resected bone. The operation was performed Nov. 3d, 1859. A nearly straight incision was made from the *glabella*, passing downward to the right over the processus nasalis, running to the ala nasi. The *skin*, carefully dissected, was so far separated that the processus nasalis of the superior maxilla, and the whole of the right os nasale, were brought into view, and then the upper border of the right ala nasi was detached from its corresponding connections with the above-mentioned bones. By means of sharp bone forceps, an incision was made from the nasal cartilage along the sutura nasalis to its union with the os frontis; and by a second incision, extending into the sinus maxillaris, the base of the processus nasalis was divided. This incision terminated where the angle of the superior maxilla, below the orbit, joins the os lachrymale. An elevator, introduced into the nasal cavity, was used to raise both bones from their bed, and at the same time the nasal bone separated at its suture with the os frontis, so that the whole, adhering to the periosteum, could be thrown up and held on the forehead. The polypi were then removed. After the bleeding was checked, the BONY FLAP was brought to its former place, and the external wound was closed by silver sutures, (which were *tied* like a thread,) and the nasal cavity carefully plugged with *charpie*. These resected bones were completely detached from the superior maxilla, frontal and left nasal bones, but were held together by periosteum and mucous membrane, and were also joined to the ossa frontis and nasal cavity by a strip, about an inch wide, of periosteum and mucous membrane. For a few days after

the operation, there was considerable swelling of the soft parts covering the wounded bones, which had, however, nearly disappeared on the 18th of November, by the application of cold water compresses. Cicatrization of the soft parts complete; no secretion from the nasal cavity; and the mucous membrane, as far as can be felt by the finger, appears to be healed. Respiration by the nose is entirely free. Pressure of the finger on the resected bones causes no pain. Between the nasal process and the superior maxilla there exists a little tumefaction, but none at the nasal suture. Patient left the bed.

IV.—“PRESERVATION OF THE PERIOSTEUM AND THE SURROUNDING SOFT PARTS.”

All surgeons who have resected bones, acknowledge that, in order to have the bone reproduced, it is of the highest importance that the surrounding periosteum be preserved; and all experience demonstrates that the removed portion of bone will be more or less perfectly reproduced in proportion as the periosteum is preserved. As long ago as 1843, I extirpated the entire *ulna*, together with the carious superior extremity, which was much hypertrophied from a chronic traumatic inflammation of long standing. In this case, the *entire* periosteum was preserved. A new *ulna* was deposited, with its perfectly traceable processes. The movement of the elbow-joint was complete, and the new, but more flattened, olecranon could be felt through the soft parts. In the year 1846, I brought this young man before the meeting of the German Scientific Congress. (See Official Report of the 24th Congress of German Naturalists and Physicians, in Kiel, 1846.) Since that period, a very great number of resections and extirpations of bone have convinced me that, by preserving the periosteum, a perfect reformation, (osteo-genesis,) or reproduction of bone, may be expected with certainty, unless the bone is suffering from *discrasia*. This opinion, formed before 1848, explains why, in the Schleswig-Holstein war, I undertook the resection of the fragments of broken *diaphyses* of bones, fractured by gun-shot wounds—an operation for which I have been greatly blamed, but which, I am thoroughly convinced, will one day take its place in military surgery. In the resections which occur in times of peace, it is very easy to preserve the periosteum which has become thickened, (as in inflamed bones;) impossible, however, when we have to expect long bones which are attacked by tumors. The preservation of the periosteum, in the resection of joints, is inadmissible, (so far as it *can* be preserved,) in case we wish to obtain a movable joint. These operations, according to our former ideas, offer no inducements for us to try to preserve the normal, *thin* periosteum.

Every operation which *maims* the patient is a "*testimonium paupertatis*" for the surgeon.

This reflection always forced itself upon me at each one of the numerous resections of the upper jaw which I have performed, and, nevertheless, (I am ashamed to confess it,) the idea never occurred to me that it might be possible to bring this operation directly into the field of conservative surgery, by detaching the periosteum from the excised bones and leaving it in connection with the adhering soft parts. The complete extirpation of the superior maxilla, or of half of it, not only deforms the face in a sad manner, but leaves behind a far worse result as regards articulation and deglutition, because the partition between the mouth and nasal cavity falls away. The conservation of this partition I consider as *certainly secured*, if we do not remove the *involucrum palati duri*, but preserve it, detaching it with the periosteum from the hard palate. I even regard it as possible to preserve the periosteum of the facial and orbital surfaces of the superior maxilla, and thus, perhaps, render the disfigurement less noticeable. It is unnecessary to say, however, that when extirpation is performed on account of *cancer*, this is impossible. But this operation is practicable in the majority of *osteo-sarcomatous*, *fibrous*, *enchondromatous* and *myeloid* growths of the superior maxillary. The detaching of the periosteum from the superior maxillary bones, the surface of which is so irregular, is difficult and troublesome, and thus additional labor in extirpation will detract considerably from the precision and rapidity of the operation. Further experience will show which incision (through the soft parts) will render the detaching of the periosteum the most convenient. In any case, I would commence the most difficult part of the operation by first making an incision along the lower and outer margin of the gums, and then, by means of a *denuding* instrument, would detach the gum with the periosteum from the bone; then divide the gums along the inner surface of the alveolar process as far as the soft palate, and separate it, *with the periosteum*, from the roof of the mouth. Then the incision of the external soft parts, which should be separated from the bone with the periosteum, should follow. The periosteum of the orbit should also be most carefully preserved; and lastly, the *bones* can be divided in the usual manner. I would finally join the gums and the periosteum of the facial surface to the border of the detached *involucrum palati duri* by means of sutures. The cases in which I have operated in this manner are yet too recent to admit of an opinion as regards the reproduction of bone; nevertheless, I may be allowed to communicate them.

FIRST CASE.—*A large Enchondroma on the under surface of the Palatum Durum—Removal of the Tumor—Preservation of the Bone and the Involucrum Palati Duri—Healed by first Intention.*

W., 27 years of age, of healthy appearance, and, excepting having contracted a primary syphilitic affection five years ago, said he was never sick; in 1857, observed a swelling, of the size of a pea, in the left half of the hard palate, which caused no pain. At first, this increased very slowly; but after a while, and particularly since the fall of that year, it grew very rapidly, softened in several places, and ulcerated near the teeth of the left side. The tumor occupied no longer a small surface, but spread over the entire palatum durum, and pressed everywhere upon the fine, sound teeth of the superior maxilla, and when the jaw was closed it nearly filled up the mouth; it also pushed the soft palate posteriorly towards the basilar portion of the os occipitis. The swelling, which was firm, hard, uneven, and free from pain, was covered by the *involucrum palati duri*, which appeared healthy until near the margin of the alveoli of the left side, where the ulceration existed, through which the probe could be introduced into the substance of the tumor. The probe, and also the acupuncture needle, when passed into the swelling as far as possible, encountered everywhere osseous matter scattered throughout the semi-solid mass.

According to the patient, many small pieces of bone had been thrown off. Whether these belonged to the *palatum durum*, or whether they were ossified portions of the tumor, which had been regarded as enchondromatous, could not be decided with certainty. The entire facial surface of the superior maxilla appeared unchanged, except a small bony tumor the size of a cherry, which was situated on the outside of the alveolar processes above the first molar of the left side. The voice was gone; the articulation indistinct; the respiration was difficult when the mouth was closed; the nasal passages were, nevertheless, perfectly free. On examination with the finger, per nasum, the upper surface of the *palati duri* was found to be smooth, and of normal resistance. But in the left nostril, the *inferior concha* felt rough, and it appeared as if there was a communication between the tumor and the bottom of the nasal cavity; as formerly, by pressure on the tumor in the mouth, blood flowed from the left nostril.

According to the first impression which the disease made upon many physicians, (and on myself also,) who examined the patient, we were led to regard the resection of the left half of the *superior maxilla*, and the entire *palatum durum*, as unavoidable; and the young man had decided to have the operation performed in the Clinic, but the sound

and firm teeth, as well as the normal condition of the nasal cavity, warranted (after repeated examinations) the hope that such disfiguration might be avoided. The operation was performed Nov. 14, 1859. A firm incision along the inner margin of the teeth of the left superior maxilla divided the *involutum palati duri*, together with the *periosteum*, which were now loosened partly by means of the raspatory, and partly with the knife.

This part of the operation was very difficult in the vicinity of the ulcerated opening, but became easier in proportion as I advanced posteriorly, and succeeded so completely that both membranes terminating in the soft palate hung down like a flap of skin, and the entire swelling was brought into view. The periosteal surface of this flap was smooth throughout, excepting only in the vicinity of the ulceration, where some fragments of the tumor remained, which were carefully removed. The tumor itself was now (by means of a sharp chisel) separated from the *palatum durum*. Some isolated inequalities of the bony palate (which appeared entirely free from disease) were then removed, and I replaced the flap directly against the bony surface, and fastened it to the gums by a firm suture. A moistened sponge was inserted into the mouth, and held in place against the palate of the tongue. The tumor appeared to be purely enchondromatous, with an abundance of bony scales scattered through it. The whole wound healed by first intention, without the occurrence of the least accident. The flap adhered firmly and smoothly to the bony palate, except at two points in the centre, where it had not united to the bone, without, however, any suppuration having occurred. If a superficial exfoliation should follow this operation, requiring removal, we have the proof that it is possible, even in the resection of the superior maxilla, to preserve the periosteum and *involutum palati*, and reunite them to the gums, as was done in this case.

SECOND CASE.—*Exostosis of the Processus Alveolaris—Resection of the same, with the preservation of the Gums, Involucrum Palati Duri, and Periosteum.*

H. W., 7½ years old, a boy of very anæmic appearance, was brought to be operated on in the Clinic Nov. 14th, 1859. The enlargement of the *processus alveolaris*, of three years' growth, extended from the gap occasioned by the removal of the upper posterior molar of the right side, to the second incisor of the left side, and extended outward towards the right *ala nasi*. The tumor was about the size of an English walnut, and projected equally inward (towards the hard palate) and outward, so that the upper lip and *ala nasi* appeared

slightly pushed forward. The tumor is hard as bone, painless, except on firm *pressure*, when the pain is so great as to prevent a faithful examination. It was diagnosticated as hypertrophy of the medullary substance of the bone.

OPERATION.—An incision was made through the gum, near the *processus alveolaris*, from the superior posterior right molar to the second superior incisor of the left side, which had been previously extracted. A similar incision was made on the inner margin of the *processus alveolaris*, through the *involucrum palati duri*. The integuments of the tumor, together with the periosteum, were detached without serious difficulty, by means of a raspatory. The bone was then cut out with bone nippers, in a triangular form, the base looking downward. The second incision crushed the thin plates of the alveolar processes. At this juncture a small, smooth bony substance, about the size and form of a musket-ball, sprang out of the opening. The soft coverings of the alveolar processes were now brought into place, and the edges of the wound exactly joined by a suture. During the first days following the operation only a slight swelling was observable, and the immediate healing of the wound seemed certain. On the fourth day, while the patient was feeling perfectly well, there appeared (in consequence, probably, of some mental agitation,) an unimportant arterial hæmorrhage from the wound. The bleeding ceased after removing the sutures, and syringing the wound with cold water. It returned, however, the following day, and was arrested by the application of a tampon of tannin. On November 21st it reappeared; small pellets of lint, wet in tinct. ferri sesquichloridi, were pushed into the cavity, and effectually checked the hæmorrhage. Previous to the first bleeding, the edges of the gums and of the *involucrum palati duri* came so closely together that the defect in the bone was completely covered; only the teeth appeared to be wanting. Notwithstanding the union was destroyed by the hæmorrhage, yet I hope to be able to repair the defect in the bone at some future period. Since non-malignant tumors of the alveolar process of the superior and inferior maxillary bones very often occur, and as, until now, the soft parts covering them have always been removed *with the tumors*, therefore I regard this sub-periosteal resection, which may be resorted to in the majority of these cases, as a real progress in this operation.

On November 15th, 1859, this case prompted me to try to detach the periosteum, and also the *involucrum palati duri*, in the total extirpation of the right superior maxilla of a boy, 14 years of age. The attempt failed, the mouth and pharynx being nearly filled by this

fibrous tumor of the superior maxilla, which had been previously, and for a long time, treated by caustics, in the hope of destroying it. This cauterization was carried on with great energy, and by means of some caustic unknown to me. At the time the boy was received into the Clinic, on that part of the tumor which protruded from beneath the upper lip there was still a suppurating surface, and the *involucrum palati duri* appeared to be degenerated into an indurated, granulating mass. The soft parts immediately covering the *superior maxilla* had become so friable, in consequence of the long-continued suppuration, that they crumbled into pieces as I attempted to detach them from the bones. The covering of the *palatum durum* and the gums, together with the periosteum, should have been *detached* from the bones, but I only succeeded in *detaching* a large portion which covered the facial surface of the bone. As regards the reproduction of the bone in this case, I shall report at a future period.

V.—TRANSPLANTATION OF THE PERIOSTEUM UPON DEFECTS IN BONE.

The experiments of Ollier upon animals (rabbits) have greatly enlightened us in regard to the *power of the periosteum in the reproduction of bone*. He separated flaps of periosteum from the tibia, in such a manner that they remained attached to the bone only by a small strip, and inserted the free end between the muscles of the limb. After a comparatively short time, an *exostosis* had sprung from the flap thus transplanted, the growth of which did not cease, even when, a few days after the transplantation, the strip connecting it to the parent bone was divided. So active was the *independent power* in the periosteum of *forming bone*, that when flaps of it were entirely detached from the tibia, and inserted into the axilla of the same animal, or of another of the same species, it continued to produce bone. To what extent these observations may be applicable in operative surgery experience must determine. *A priori*, we should expect that *human periosteum* will perform its functions as well, when it can be transplanted under as favorable circumstances, as in the cases of Ollier; that is, if we can convey to the living tissues detached periosteum, before it has lost its temperature and natural vitality, and insure immediate reunion of the wound. My first experiment was made by transplanting the *pericranium* (from the os frontis) to the nose, to reproduce the ossa nasalia, which had been completely destroyed by disease. Notwithstanding it was evident to me that this experiment, carried on as circumstances required it to be, would be regarded as *unphysiological*, yet that could not deter me from making it, since no unfortunate result could occur to the patient. I can form no opinion

as to the termination, yet I do not hesitate to communicate at this time the principal features of the operation, at the same time, however, calling attention to the unfavorable circumstances under which it was necessarily performed.

CASE.—Mrs. L., 40 years of age, was received into the Clinic at the commencement of the present session, (1859.) More than two years ago an *ozæna* developed itself, which led, on the one hand, to a perforation of the hard palate; and, on the other, to an entire loss of the bones of the nose, *conchæ* and *septum narium*. In consequence of this destruction, the bridge of the nose was completely sunken, and the external uninjured soft parts of the nose were drawn back against the nasal processes of the superior maxilla. Notwithstanding the decided denial of the patient that she had had a primary affection, yet the uneven surface of the cranium, and the means employed before her admission into the Clinic, authorized the conclusion that the destruction of the bones was caused by *syphilis*. A purulent secretion from the mucous membrane of the fauces was arrested by four weeks' treatment with the iodide of potassium. I wished to defer the operation until spring, but was obliged to yield to the pressing solicitations of my patient, and the operation was performed Nov. 17, 1859. The soft parts of the nose were divided by a semicircular or U incision, (or rather in the form of a horse-shoe,) extending from the *processus nasalis* of the superior maxilla over the nasal cartilage, from one *ala nasi* to the other, opening completely into the nasal cavity—separating the lower from the upper portion. The point of the nose was then drawn downward and forward, in such a manner that the *tip* nearly touched the lip. Into the wound, thus made, a similarly shaped flap from the forehead was transplanted, whose pedicle or nourishing point was near the inner corner of the right eye, the borders of which were united to the edges of the nasal wound by silver sutures. When I formed the flap from the forehead, I cut, not only through the *skin*, but through the *PERICRANIUM* to the bone, and the whole together was then separated from the *os frontis*, by means of a raspatory. This operation differed from others which I have performed for repairing defects of the nose, only in the fact that the *periosteum* was detached with the *skin*, and formed the *base* of the flap which was transplanted into the space where the nasal bones were wanting. Afterwards, the edges of the wound in the forehead were brought together as much as possible by two sutures, the denuded portion of the *os frontis* covered with lint, the nasal cavity filled with charpie, and the nose covered with a cold-water compress. I will only

state concerning the subsequent history of this case, that to-day, (Nov. 22,) five days after the operation, the *turgescence* and *swelling* of the *rose-colored* flap are much more marked than I have observed in my former cases. The edges of the wound are perfectly healed at nearly all points, only here and there a superficial suppuration. The defect in this operation is, according to my idea, that the periosteal surface of the flap, twisted to cover the opening in the nose, will be in constant contact with the current of air from the nostrils, and as a natural result, must suppurate and granulate. Whether the pericranium remains capable of producing bone under these conditions, seems very doubtful. The denuding of the os frontis, and the possible superficial exfoliation of the same, would hardly be thought of any account, if the design of the operation is thereby accomplished. In cases of complete destruction of the nose, the chances of this operation would be far more favorable. We could cut the skin (surrounding the nasal defect) to the bone, loosen it with the periosteum, and twist it over so that the epidermis would be turned towards the nasal cavity, which would leave the periosteal surface looking upward. *Upon this surface*, for a basis, a flap of skin and periosteum could be transplanted from the forehead, and in this manner the *pericranium* of the frontal flap would lie on the *periosteum* of the facial flap; that is, two periosteal surfaces would be together, and thus render the chances for bony deposit much more favorable. I have frequently, when supplying defects in the nose by frontal flaps, used the surrounding skin in the manner just cited, (but without the periosteum,) to form a lining for the other flaps, particularly, as in this manner I prevented the adhering of the nasal surfaces, which so easily occurs in these operations.

(APPENDIX.)

BERLIN, *January 31st*, 1860.

Having seen the operations referred to in this paper, and observed the patients, I am able to give testimony in regard to them. The young man from whom the fibrous polypi were removed from the posterior nares, *via* an opening made by the resection of the right nasal bone and the processus nasalis of the right superior maxilla, left the Clinic perfectly healed. No exfoliation occurred, and only for a few days was there a discharge near the lachrymal sac. The bony union was complete and firm, when I last saw it, about a fortnight since. No irregularity of the bone or mucous membrane could be felt in the nares.

In case 1st, under division 4th, (enchondroma of the under surface

of the palatum durum,) there was a most favorable result. The gums and involucrum palati duri healed to the bone, and no exfoliation took place. The cure is complete.

The boy from whom was resected the processus alveolaris went directly to the country, and died (as was communicated by letter) one week after the operation, from peritonitis. No post-mortem was made.

In case 1st, division 5th, in which there was a *transplantation* of the *pericranium*, to supply a defect in the nose, a most satisfactory result has followed. There was complete union by first intention. There was no morbid secretion from the under (pericranial) surface of the flap, which was greatly feared would be troublesome; but this surface seemed to take on the character of mucous membrane. The apprehended exfoliation of the os frontis did not take place, free granulations having quickly sprung directly from the bone, so that now only a small spot remains uncovered by new skin. In fact, Prof. Langenbeck says it has cicatrized as soon as in the cases where the pericranium was left. The nose feels firm, and has a regular form. A small portion of the flap (which was removed in order to raise the nose up a little) was examined under the microscope, and found to contain an abundance of osseous and cartilaginous cells. Several other osteo-plastic operations have been performed since the above paper was written, the history of which I will endeavor to communicate at a later period.

W. F. H.

Lectures on Displacements of the Uterus. By E. R. PEASLEE, M.D., LL.D., Professor of Obstetrics and Diseases of Women and Children in the New York Medical College.

(Continued from last No. of the MONTHLY.)

LECTURE No. II.

GENTLEMEN—In the preceding lecture I have spoken of the structure of the uterus, its normal position and relations, and the agencies maintaining it in position; and in general, also, of the causes of uterine displacements, their symptoms, the methods of recognizing them, and their prognosis. I shall to-day speak in a general way of certain means adopted in the treatment of this class of diseases; and also call your attention to the nervous endowments of the uterus, as explanatory of the manifold symptoms already enumerated.

I. The general indications in the treatment of uterine displacements are:

1st. To replace the uterus.

2nd. To maintain it in its normal position by such aids as may be either temporarily or permanently required.

The former of these objects is accomplished by manipulations, either alone or combined with the use of instruments; the latter, by various means, among which the use of astringents *per vaginam*, and of mechanical supports, are most prominent. And these two classes of remedial means will next be considered.

A. Of *astringents*, the tannic acid, alum, sulphate of zinc or copper, nitrate of silver; or infusions of vegetable substances containing the first, as oak-bark, nutgalls, matico, &c., are most commonly used. All these are used most frequently as vaginal injections, and therefore in solution in water; though they may also be used to advantage in the form of suppositories, or ointment, or of powder. All of them are also used in several other forms of uterine disease.

Some writers, however, object *in toto* to the application of astringents *per vaginam*; though such are generally opposed especially to astringent vaginal injections. Dr. Hamilton maintained that the use of strong astringent injections is injurious, and may be positively dangerous; since the irritability of the vaginal mucous membrane varies in different women, and at different times in the same woman. Of course it is admitted that an injection may be strong enough to do more harm than good in any case. Experience shows what the average strength should be; and also, that we should begin with a weak and proceed to a stronger application. But Dr. Hamilton also thinks that astringent injections are more apt to injure the uterus than the vagina itself; and asserts that most of the many cases of chronic enlargement of the uterus he had been called upon to treat were produced by their use.

Of course, astringents may be so used in some cases as to produce this result. But we have only to be aware of this fact to be able to guard against it. They can produce chronic enlargement of the uterus only by first producing inflammation; and this effect we ought at once to detect, and then to remove the cause. Finally, Dr. Hamilton asserts that a sudden suppression of an habitual vaginal discharge by the use of astringents is often "followed by distressing headache, obstinate inflammation of the eyes, or eruptions on the face."*

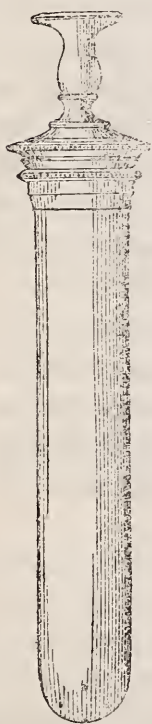
* Practical Observations, p. 17.

But, admitting that all the preceding consequences may result from the indiscriminate use of astringent vaginal injections, they will often be found to be very beneficial, if used in accordance with the following directions:

1. Withhold them entirely if there is any inflammation, or even much congestion of the vagina or the uterus.
2. Use them of the proper strength, beginning with a weak application.
3. In case of a profuse discharge, never check it suddenly, by their use.
4. Discontinue the application, if any bad effect ensues from it.

Used with these precautions, I regard astringent vaginal applications, in the various ways enumerated, as very valuable aids in the treatment of the displacements under consideration, as well as of several other uterine diseases; and I shall have occasion, therefore, to recommend them further on.

FIG. 2.



I have insisted on beginning with a weak application. I have been in the habit, on first prescribing an astringent injection, to direct the patient to mix a portion of the whole amount prescribed (say one-fourth) with as much water, and use that first; then mix another portion with half as much water; and next apply the full strength. An ounce of the astringent solution is sufficient for each application, if properly applied. There is no need of one half pint to a pint, as is sometimes directed. It should be used two or three times daily, and applied *cold*. These injections are, however, too often ineffectual, from a wrong method of administration. It is not enough to make your prescription, and tell the patient to use it as an injection. She must be told what sort of an instrument to obtain, and how to use it.

The best vaginal syringe is the "India-rubber Vaginal Syringe, manufactured by the Beacon Dam Company." It is made of vulcanized gum-elastic, is not acted on by acids, is strong, light, and elegant, and of the best form. There are three sizes of this instrument, and the accompanying cut gives an idea of its form—being one-third size linear. A glass instrument of the same form is of course less expensive, and answers very well as a substitute. The instrument being

selected, the patient is to be instructed to use first an injection of cold water, (half pint or more,*) and then apply the astringent injection while in a recumbent position, with the pelvis slightly elevated; using but a single syringeful, but retaining the instrument two or three minutes, at the same time preventing the escape of the fluid from the vagina, so far as may be. If water is not previously used as just advised, the secretion, coagulated by the astringent, accumulates in the vagina, and produces irritation; or at least protects the vaginal membrane from the contact of the astringent, and thus entirely defeats the object of its administration.

Astringent suppositories may also be applied by the patient herself; but in the form of powders the application must be made by the practitioner, through the speculum.

B. *Mechanical supports* may be arranged in two classes—the *external* and the *internal*.

The *external* include a great variety of bandages, most of which are termed abdominal and utero-abdominal supporters. The idea, however, of supporting the uterus (except during pregnancy) by any kind of bandage applied around the abdomen or pelvis, while this organ does not rise to the level of the superior plane of the bony pelvis, as I have shown, (Fig. 1.) is simply absurd. The term “utero-abdominal supporter” is therefore a misnomer, and only calculated to delude the ignorant. Abdominal supporters are useful in cases of relaxation of the abdominal walls, during pregnancy, or otherwise, and they will sometimes, by their pressure, either anteriorly or posteriorly, relieve some symptoms produced by a uterine displacement. So far, then, they are of real value. But on the other hand, they can never in the least tend to restore a displaced uterus to its normal position; and they may, by their indirect pressure upon it, insure a displacement in cases with a mere predisposition thereto. They must therefore be used with extreme caution in the displacements to be considered, provided other complications render their use expedient.

The *internal*, or intra-vaginal mechanical supports, include a great variety of appliances to support the uterus after it is reduced to its normal position, and to which the general term “pessary” has been applied. Some, however, object to pessaries in all cases, though they use a ball of lint, soaked in an astringent solution, instead. Such a ball, however, when used to support the uterus, is simply a medicated pessary. So, also, is a muslin bag, filled with an astringent powder,

* The same vaginal syringe may be used for this purpose.

when used for a similar purpose. The ancients used a variety of vegetable substances, and other matters too disgusting to be named, as pessaries. I shall have occasion to recommend the two forms of medicated pessary just mentioned in another connection.

But the word "pessary" is usually applied to an instrument made of wood, ivory, glass, gum-elastic, gutta-percha, cork, sponge, or some metal that is not liable to oxydation; of a circular or oval outline; sometimes discoid, and perforated in the centre; sometimes in the form of a simple ring, or of a globe, or an ovoid—and which is introduced into the vagina to support the uterus, as before explained. Within a few years some practitioners have also used instruments passing partly into the cavity of the uterus, in the treatment of uterine displacements, and these may be termed *intra-uterine* pessaries. These are, however, recommended only in cases of antelexion or of retroflexion, and I shall speak of them in connection with these two displacements. We should, however, form a definite idea of the actual value of intra-vaginal pessaries in this connection.

I would as soon say I would never use a splint in surgical practice, as that I would never use a pessary in the treatment of uterine displacements; though they are not often, like splints, quite indispensable to the treatment of the case. They are, however, in many cases the best remedy, if used with the proper restrictions, and therefore should be preferred to all other means.

Among the high authorities opposed to the use of pessaries are Dr. Hamilton, before quoted, Dr. Rigby, and the late Prof. Dieffenbach; and the following is the sum of their objections to them :

1. They are indelicate for the patient to wear.
2. They cause a (sometimes even putrid) vaginal discharge, by irritating the vaginal mucous membrane.
3. They are of no use, or even fall out, if too small; and dilate the vagina if too large.
4. They cause ulceration and fungous growths, and ultimate contraction of the vagina.
5. They produce constipation and irritation of the bladder.
6. They subject the patient for life to the charge of the medical attendant.
7. They may become incruited by calcareous matter, and have to be broken before they can be removed; or may pass, by ulceration, through from the vagina into the bladder or rectum.

If but a small part of these effects of the use of pessaries be unavoidable, very few practitioners certainly would have the hardihood

to use them, even in desperate cases. But this is by no means the fact; and to denounce an instrument because it may be made to do mischief is hardly philosophical. The question should be, Can the instrument be made to do good? and if so, under what conditions, and with what restrictions? And, as furnishing a reply to the latter question, I should say that the following rules should, in practice, be adopted:

1. Pessaries are not to be used if there be irritation or inflammation of the vagina or the cervix uteri, or any other organic disease of the latter. If neither of these exist, the question of their use may be considered.

2. Their size must be precisely adapted to the cases requiring them.

3. Watch the patient after the introduction of the instrument; and remove it if any occasion for so doing arise.

4. Examinations should subsequently be made at proper intervals to ascertain if any mischievous effects are being produced, in which case the instrument is to be removed.

5. The woman must be taught to keep the instrument cleansed by daily vaginal injections of water or weak soap-suds. I once removed a glass pessary which had remained fourteen months in the vagina. It had not caused the least irritation, though the physician who introduced it had not instructed the patient to take the precaution I have just inculcated.

6. Remove the instrument occasionally, (once a month, at least,) to make sure that it remains in good condition; reapplying it if it does so remain, or a smaller one, if such will now answer.

I consider the question of the delicacy of wearing a pessary as too trivial for serious consideration. If notions of delicacy alone were to control us, we should never even ascertain the existence of these displacements by any examination, nor advise any local treatment at all if they were conjectured or discovered.

Used with the precautions above mentioned, and in cases requiring mechanical support, I consider pessaries temporarily used to be of great value; and I shall here add some remarks upon their composition and their forms.

In order to answer the conditions before specified, a pessary should be (1) as light as possible; (2) made of a material which will retain a smooth surface, and therefore not be acted upon by the uterine or vaginal fluids; and (3) be of a form best adapted to the vaginal walls, and causing the least possible pressure consistent with securing the object for which it is used.

The *form* which insures the greatest degree of lightness is the ring,

and I therefore prefer it. If the material be glass, it is liable, unless quite thick and heavy, to fracture. But the ring pessary may be made of a thin plate of silver or gold, first soldered in the form of a tube, and then curved so as to form a circle of the proper diameter. A solid ring of ivory may answer, but is heavy, and ivory is objectionable as a material. Gum-elastic renders the vaginal discharges intolerably foetid. Gutta percha is not, however, liable to this objection, (if used in its usual purity,) and I prefer, for most purposes, the pessary I have so often used before you, consisting of a ring, $2\frac{1}{4}$ inches (more or less) in diameter, made of a piece of watch-spring, which is completely covered by gutta percha, so as to make the ring about four lines thick. This ring pessary has the advantage of being light, and can be made to maintain a circular or elliptical form at pleasure. Besides, it is not acted upon by the fluids in contact with it, if ordinary care is exercised to keep it clean. A patient of mine retained one eleven months—though contrary to my directions—and at the end of that time its surface had not changed in the least. Their size will vary from $1\frac{1}{2}$ to 3 inches in diameter, in different cases. A simple ring of tin is also a very serviceable, and a cheaper pessary; and being quite flexible, and rather firm, it may be bent into any required form before its introduction, and which it will afterwards retain. A ring pessary, properly adjusted, will answer all the requirements of this class of instruments, in almost every case, except when a globe pessary is needed.

The pessary just described is used to retain the uterus after it is replaced; the *globe* pessary is an important aid, in some cases, in replacing and then retaining the uterus. It finds its peculiar value in some cases of prolapsus uteri, with adhesions of this organ, as will be seen. It is simply a hollow sphere, or is sometimes shaped like an egg, and made of a very thin and light plate of gold, or of silver. A solid ball of any substance is objectionable, on account of its weight.

Of *stem pessaries* I have little to say. They are kept in the vagina by some external apparatus; which should always be avoided, if possible, as very inconvenient to the patient; and I have not, of late, met with any case in which I could not accomplish all that this form of instrument promises, by the use of the forms already described. For it is only in prolapsus that the stem pessary pretends to any superior merit. I should, however, add, that the stem pessary may be the best in certain complications with prolapsus, hereafter to be specified. Sponge pessaries become intolerably offensive, even in a few hours, and cause much irritation of the vaginal membrane. Cork is also liable to the same objection in a less degree. Of late, therefore, I have confined

myself, with very rare exceptions, to the ring pessary, made of gutta percha or metal, and the globe pessary of metal, as before described; with such medicated pessaries as will be specified further on. I long ago laid aside the gum-elastic bags, introduced into the vagina in a collapsed state, and subsequently inflated; they becoming intolerable from the odor they impart to the vaginal secretion.

II. In regard to the *nervous endowments* of the uterus, quite diverse opinions have been recently maintained. Dr. Robert Lee published the results of his investigations in 1842, (see Philosophical Transactions for that year,) and maintained that an extensive nervous network covers the entire uterus; and which is derived from the hypogastric and spermatic plexuses, and forms vesical and vaginal ganglia, and anterior and posterior sub-peritoneal ganglia and plexuses. He also maintained that this great system of nerves enlarges during gestation, and returns again to its former condition after parturition. Most obstetricians adopted Dr. Lee's ideas on this subject till within the last few years. But Dr. Lee did not verify his dissections by the use of the microscope; and Dr. Snow Beck, applying that test, has come to the conclusion that the uterus is, on the contrary, not abundantly supplied with nerves. I have no difficulty in believing that Dr. Beck is in this correct; for, in addition to his positive demonstrations, the uterus gives no evidence of a very high degree of innervation either in its physiological condition or its pathological states. That the nerves are, however, enlarged during gestation, is certainly in the highest degree probable. All our certain knowledge, however, up to the present time, respecting the sources of the nerves distributed to the uterus and its appendages, may be expressed in a rapid and general manner as follows:

The genital organs of the human female derive their spinal nerves from the lumbar and the sacral plexuses; and their sympathetic branches from the spermatic and the inferior hypogastric (or pelvic) plexuses.

A. The *spinal nerves* from the lumbar plexus are as follows: The scrotal branch of the *ilio-scrotal* nerve (as it is called in the male) is distributed to the round ligaments and the labia majora; while its abdominal branch goes in part to the mons veneris and to the groin. A branch of the *ilio-inguinal* nerve also communicates with the latter, and proceeds to the same parts. The genital branch of the *genito-crural* nerve is also distributed to the round ligaments and the labia majora, and to the skin of the groin. Other branches from the lumbar plexus are distributed to the integuments and muscles of the thigh, and the internal saphena branch of the femoral (or anterior

crural) nerve, even to the foot. These facts account for the reflex pain often felt by patients with affections of the uterus, in parts at a distance, and especially in the lower extremities.

The following are the *spinal* nerves from the *sacral plexus*: The *visceral nerves* ascend on the sides of the vagina, rectum, and bladder, and the 3d and 4th sacral nerves give off branches to the uterus. The superior branch of the *internal pudic* nerve goes mainly to the clitoris; its perineal branch to the vulva and the perineum. The perineal cutaneous branch of the lesser ischiatic nerve also supplies the vulva.

B. The *sympathetic* nerve-fibres are derived from the following sources: The *spermatic plexus* gives off branches to the round ligaments, the ovaries, the Fallopian tubes, and the uterus itself. The *inferior hypogastric* (or pelvic) *plexus* gives off branches to all the organs in the pelvis. The *uterine nerves* come off above the sacral nerves, and thus penetrate the substance of the whole of the uterus in company with its arteries. They therefore consist mostly of sympathetic fibres. For you are aware that the sympathetic nerves, so called, contain also some coarse (or spinal-nerve) fibres. On the other hand, the nerves to the vagina from the vaginal plexus (an offset from the pelvic) contain many coarse, (or spinal,) and but few fine (or sympathetic) fibres. This accounts for the greater sensibility of the latter portion of the genital apparatus.

A recapitulation of the preceding facts gives the following result:

1. The *uterus* is supplied with *spinal* nerve-fibres from the sacral plexus, and with *sympathetic* fibres from the spermatic and the pelvic plexuses. As the visceral nerves are also distributed to the other organs of the pelvis, and other branches from the sacral plexus are sent to the gluteal and sacral region, and to the lower extremity, we should expect a wide range of reflex sensations developed in the various uterine affections. Moreover, this expectation is further enhanced by the fact that the pelvic plexus also gives off branches to the other organs in the pelvis, as well as to the uterus. Reaching the uterus between the two layers of the broad ligament, its nerves are distributed from the fundus and body to the neck, and to the latter part most abundantly. More branches are also sent to its posterior than to its anterior half, and hence the former is its most sensitive portion. Besides, the body of this organ is not so highly sensitive in its normal condition as the neck, from the greater proportion in its nerves of the fine fibres.

2. The *appendages* of the uterus are supplied with nerves as fol-

lows: (1.) The *ovaries* receive branches from the spermatic plexus alone, so far as is known; though there are doubtless some spinal nerve-fibres in the branches sent to them. The uterus also receives branches from the same plexus, as we have seen; and hence a direct sympathy between the uterus and the ovaries, both in their physiological and in their pathological states. (2.) The *Fallopian tubes* receive branches from the spermatic plexus also, and a branch from one of the uterine nerves. Thus, they sympathize with the ovaries on the one hand, and the uterus on the other. Like the ovaries, they are not known to receive any distinct branches of spinal nerves. The importance of this triple sympathy in relation to the fecundation of the ovum, and its subsequent transmission through the Fallopian tube into the uterus, will not be overlooked. (3.) The *round ligaments* are supplied from the lumbar plexus and the spermatic plexus.

3. The *vagina* is supplied with nerves from the sacral and the pelvic plexus. It has already been stated that even in the sympathetic branches from the latter plexus, the spinal nerve-fibres predominate, and hence its higher degree of sensibility as compared with the uterus. The *vulva* is supplied from both the lumbar and the sacral plexus.

But this must suffice on this topic. My object is to prepare you to expect a variety of pains, and other modifications of sensibility, in cases of disease of the uterus and its appendages; for since, as we have seen, a direct sympathy of the uterus itself with all its appendages exists on the one hand—while, on the other, there is a sympathy between each of these and more distant parts deriving their nervous endowments from the same source—we can never predict precisely what or how many peculiar sensations may be developed in any particular case; and we may perhaps have the same symptoms in cases quite unlike.

And you will now, I trust, more fully appreciate the statement, since you can give a reason for it, that many symptoms may be common to a great variety of uterine affections; that the mere rational signs of uterine displacements are not at all reliable; and that a vaginal examination alone can lead to a *positive* diagnosis.

Prolapse of the uterus will be the subject of my next lecture.

On the Mechanical Means adopted in the Treatment of Morbus Coxarius.
By H. G. DAVIS, M.D. (*With a Plate.*)

The results obtained from the present modes of treating morbus coxarius are not so satisfactory as to require an apology when a new method is proposed, especially when that method, in some important particulars, has thus far in its application proved perfectly satisfactory.

It is my intention to confine the contents of this paper almost exclusively to a description of a method of treating this disease which I have pursued for twelve years; and as it has never been brought before the profession, it becomes necessary to describe it minutely. As I proceed in the description of the apparatus used, and the manner of its application, it will be somewhat necessary that I indicate the reasoning which guided me towards its adoption.

The several parts employed in the treatment are four strips of adhesive plaster, (see Plate, Fig. 1;) a roller to confine them to the limb, firm webbing to be attached to the lower end of the adhesive plasters when upon the limb, (Fig. 2;) a cord, pulley, and weight, for extension when upon a bed or couch; a corrugated steel splint, (Fig. 3,) with a perineal band, composed of two parts—an inelastic, (Fig. 4,) and an elastic, (Fig. 5)—arranged in a peculiar manner, so as to keep up extension while the patient may take exercise within the house or in the open air.

When called to treat a case of morbus coxarius, I bring the tibia in a line with the femur, but attempt no change in the direction of the latter if it is not parallel with the body. If the femur is flexed upon the pelvis, the body should be raised until the limb will lie extended upon the mattress or couch. Adhesive straps are placed upon each side of the limb, in the following manner: First, double over one inch of each adhesive strap designed for the sides of the limb, bringing the adhesive surfaces in contact for the purpose of increasing the strength of the part, to which a firm inelastic webbing is to be attached. The strip for the outside of the limb commences with the folded end mentioned, at a point one inch above the external malleolus, and extends to the region of the great trochanter; that upon the inside, from one inch above the internal malleolus to within one inch of the pubis. Upon the lower end of the adhesive strap, on the outside of the limb, I commence with a narrower and longer one, and run it spirally around the limb until it reaches the upper end of the longitudinal straps; another starts from the same point upon the outside of the limb, but winds in the opposite direction. These spiral strips accomplish a two-fold purpose: they connect the outside longitudinal ad-

hesive plaster with that upon the inside of the limb, so that any extension made upon the outside plaster is shared by that upon the inside. This arrangement also secures the bottom of the outside longitudinal plaster from being displaced laterally when the splint is applied, always retaining it in a line with the limb. The width of these plasters varies from an inch and a quarter to two inches and a half, according to the size of the patient.

When the extension is made by the splint, it is always upon the outside of the limb; at other times it can be made from both sides; the latter mode of extension supports the sides of the foot equally, and is therefore preferable when the patient is upon the bed or couch.

Before proceeding further, I would say a word upon the character of the adhesive plaster to be used for such purposes, as that ordinarily used for dressing wounds will only disappoint the surgeon. It should be spread upon twilled goods, as they are more elastic; and when the extension is made the parts first affected will yield until the whole surface of the plaster bears a portion of the draught; whereas plaster upon plain cloth draws only in a straight line, therefore is only applicable to an even surface.

The material of the plaster should not only be good, but it should have been spread upon the cloth for at least one year, and it is still better if two years old; age oxydizes the oil, rendering it resinous, so that the oily secretions from the skin do not readily soften it. Plaster of this description I have had remain upon an adult for seven months, sustaining a weight of twelve pounds every night, and not unfrequently during the day a considerable portion of the entire weight of the body.

After the application of the adhesive straps in the manner described, the limb should be covered with a bandage from the foot to the pelvis, to secure firm adhesion of the plasters, also to prevent their edges from being raised by coming in contact with the clothing, or by the hands of the patient during sleep; this bandage should be affixed to the limb for some hours, with the patient warm in bed, before any draught is made upon the adhesive straps, that they may become firmly adherent to the limb; after this time has elapsed, a weight, varying from two to six pounds, according to the strength of muscle and the sensibility of the joint, may be attached to the adhesive straps upon each side of the limb by a cord that runs over a small pulley secured to the foot of the bed or couch; the top of the pulley being a little above a line with the centre of the limb. This weight should be increased from day to day, until a general sensation of fatigue is felt in the entire limb to an unpleasant extent, and then diminished until it just falls short of this point. The extension is first made at that angle

with the body that I find the limb; as the tenderness of the joint subsides, the body should be gradually lowered until it is brought in a line with the limb; when this is effected, the splint can be applied, and the patient put upon crutches and permitted to exercise.

Upon the lower end of the adhesive straps attached to the outside of the limb, I secure a piece of firm, strong webbing, of sufficient width to support the weight of the patient; this passes over the end of the splint, and is inserted into a buckle on its outside, near the joint.

The counter-extension is now ready for the splint; this I make of steel, of sufficient width and thickness, that when corrugated as it is in the splint, it will sustain the weight of the patient without yielding; and it is surprising how little weight of material it requires to fulfill these indications when put into the corrugated form. A strip one inch and a half wide, of No. 16 rolled cast-steel, when corrugated, will sustain, endwise, the weight of an adult without yielding.

The splint has a joint near the knee, for the purpose of rendering it easy of application. The lower portion overlaps the upper, and when the splint is brought up to the limb, and the extension made, a piece of steel in the form of a band slides over the end of the overlapping portion, and secures the joint. The bottom of the splint, in some cases, I make of a separate piece, with holes for altering the length, and secured by screws to the other; but without this the splint admits of a difference in the length of the limb of two or three inches, which is frequently all the alteration that is necessary. If the webbing attached to the plaster is some wider than the bottom of the splint, it will contract over the corners sufficiently to retain the splint in its fold; to make it still more secure, the lower end of the splint can be cut into, forming slight grooves, into which the threads of the webbing will draw, thus preventing displacement. Just below the joint, in the splint, is the button for the attachment of the buckle, before mentioned. Quite at the top, and inside of the splint, is an eye, through which runs the catgut attached to the two ends of a perineal or extending band, and forms a part of it when the whole is applied to the patient; the catgut, passing through this eye unconfined, allows the upper portion of the splint to traverse back and forth without disturbing the perineal band. All of that portion of the splint that passes above the hip-joint has a motion, of which the joint is the centre. By this arrangement, allowing the catgut to traverse in the eye of the splint, the perineal band is not disturbed by any motions of the limb, and all irritation from motion is avoided. The whole of the splint is covered with leather, with the exception of a small space at

the bottom, and that occupied by the joint and its fastenings; between this and the limb is a flat piece of leather, to prevent irritation from this part. The perineal or extending band is a very simple, though a very important contrivance. It is so arranged that any amount of extension can be made; yet, when the patient steps upon the limb, it yields no further.

There is, first, an elastic band made of rubber, or rubber webbing, to which two buckles are attached, one at each end. In addition, there is a piece of inelastic webbing, that is from eight to twelve inches longer than the elastic band mentioned; this passes through the buckles in such a direction that when draught is made upon each end, the buckles take hold of the webbing and confine it; by this arrangement of the two bands they can be buckled at different lengths; by leaving the outside inelastic band loose between the buckles, any draught applied at the ends of the inelastic will be communicated to the elastic band, extending it until it is of the same length as that portion of the inelastic band contained between the buckles; then the latter will prevent any further extension. By this arrangement it will be perceived how a certain amount of extension can be kept up; yet when any additional labor is thrown upon the splint, as when the patient leans upon the limb, it will yield no further. The loose ends of the inelastic webbing I fold back upon themselves, and introduce into the buckles; where the folds come, a steel ring is stitched on securely, for the purpose of fastening the piece of catgut that is to pass through the eye at the upper end of the splint; the end of the inelastic webbing is folded back, as mentioned, that the length of the perineal band may be varied without untying the catgut. Both ends of the perineal band are secured to the catgut after the latter is placed in the eye at the top of the splint; the whole forming a loop that can be put upon the limb over the foot without disturbing any part. For a cushion beneath the perineal band, I use old table linen, or old napkins that are soft; they should be folded an inch wider than the perineal band, and a little longer; after folding, the parts should be caught with a needle and thread, to prevent their displacement.

These cushions should be changed every second day, particularly during warm weather, as they collect the secretions, and then are liable to excoriate the parts. For the first few days, care should be taken that the splint is not kept on, after anything like a sensation of heat or smarting is experienced in the groin. If proper care be observed at first, the parts beneath the perineal or extension band will have become so hardened as to render any excoriation improbable.

Whenever the splint is removed, the extension by means of the weight should be applied, that the diseased surfaces of the joint may be constantly separated. The splint is intended to fit closely to the outside of the limb, and to be worn inside the stocking; that this may be done, and also that it might be worn unperceived, I have avoided all additions to its thickness. Irregularities upon its surface have been guarded against, as they would soon wear a hole through the clothing, and thus become obnoxious. The eye for the catgut is the most simple form of accomplishing the object, is never liable to get out of order, and in my hands has not originated an objection. If the mechanic who constructs it is not aware of its use, he may leave it so unfinished as to fray the catgut, but this is no fault of the principle. I have an adult patient that has used the same piece of catgut for ten months.

This plan of treatment has been foreshadowed in the various contrivances and operations adopted by surgeons, and with varying success in proportion as they carried out the principle involved, and, as I conceive, fully applied in the mode just described.

It is not an unfrequent occurrence that a failure results from an imperfect application of a correct principle. Hence, we often see the revival of some principle of treatment, followed by success, that has previously been condemned, because of its imperfect application.

I have delayed bringing the subject of this paper before the profession until time had given me an opportunity, not only to overcome any minor difficulties that might arise, but to test its application, and compare the results with the modes heretofore practiced. It is an unfortunate circumstance that so many new things are hurried before the profession in a crude state, to be condemned or die of neglect, when they would have been highly useful if the inventor or discoverer had taken time to digest and mature his plans, and then apply them until all objections or difficulties in their use should be overcome.

The advantages of this plan of treatment are:

1st. It relieves all suffering after the limb is brought down in a line with the axis of the body, and the sensibility of the joint has had time to subside; but from the commencement, there is a decided mitigation. The time requisite to bring the limb down varies from one to twenty days, according to the tenderness of the joint and the contraction of the muscles. I give it as a rule to the attendants, that whenever the patient complains of pain, they may be certain there is not the proper amount of extension upon the limb.

2d. It retains the limb in the best position as to length, &c., whatever may be the result to the head of the bone.

3d. It puts the diseased parts in the best position for their restoration with a perfect joint, as it relieves the pressure upon the head of the bone, while at the same time, it admits of motion, which increases the recuperative energy of the parts, inasmuch as it increases their vitality.

4th. In consequence of the favorable results mentioned, the patient's life will rarely if ever be sacrificed to the disease.

The relief afforded the parents and friends of the patient might be mentioned, as there are few diseases that make a greater demand upon the sympathies and physical efforts of parents and friends than this.

In a former paper, I incidentally mentioned the relief from irritation afforded by separating the head of the bone from the upper portion of the acetabulum. I have had patients with very depraved constitutions, where large abscesses had formed about the joint, in whom hectic fever would have been sure to follow their opening under the old mode; but while extension was kept up, not an unpleasant symptom followed, not even so much as any impairment of the appetite. This favorable result I have seen follow the opening of abscesses both in Pott's and hip disease, when the parts were kept separated.

It will not be expected that every case of morbus coxarius, although treated upon this plan from the commencement of the disease, will recover with a perfect joint; yet we can safely rely upon a far larger percentage than by any other mode; in addition, whatever may be the point at which the disease stops, the limb will be left in the best condition possible, considering the loss of structure sustained. If the head of the femur should be entirely destroyed, the limb should be kept at its full length; and if anchylosis takes place, it does so without material shortening of the limb. If a patient should recover from the disease while wearing the apparatus, great care is requisite that it be not laid aside too soon; the necessity of this caution becomes evident, when we consider upon how small a surface of the head of the bone, or of the cavity of the acetabulum, must rest the whole weight of the body, and frequently many times its weight, as in jumping, &c.

Again, this very small surface is the portion that has just recovered from disease, or, in other words, is a fresh cicatrix, the vitality of which is less than that of the original structure. There is yet another consideration: if inflammation takes place in this part, it will be of a far more active character than that with which it was at first affected, and will very probably speedily result in suppuration if not subdued. The remedial measures should be much more active, particularly the local treatment, than in an ordinary case of hip disease.

It will be observed that the treatment I have presented is entirely mechanical, therefore does not interfere with any constitutional or local medication, which any gentleman may consider advantageous. On this part of the treatment I do not design to speak at the present time, but reserve it for a future paper.

67 UNION PLACE.

A Glance at Medical Science among some of the East Indian Nations.
From the French of Dr. L. S. HEYMANN.

The prescriptions of the Javanese doctors, called *dukum* in the Malay tongue, are always very complicated, consisting of ten, twenty, or a larger number of drugs, each one destined to combat one of the most prominent symptoms of the disease under treatment. Among the substances which make up the *Materia Medica* of the Javanese, there are some possessed of incontestable pharmaceutical virtues. Some of these have been recently tested in the hospitals of Java, and in similar establishments on the other isles of the Sound, and the experiments have been successful.

The Javanese physicians do not trouble themselves about the diet and regimen of their patients; but, on the other hand, they administer drugs as frequently to those who are well, to preserve their health and prevent disease, as with the view of curing it. Chiefs and persons of high station are incessantly occupied with the condition of their health, and consequently take daily different medical compounds. Among others, there is an officinal preparation, called *Djamoe*, which is employed largely by those who desire to protect themselves from all kinds of disease, and which is composed of from fourteen to twenty-six different substances. It is not employed until the age of fourteen years is attained, but other compounds, more or less analogous, are used for children. The child in the cradle is exposed to the necessity of using these, while the most decrepit old men also demand of *djamoe* additional years of life and health. The following articles enter into the composition of *Djamoe*: *Carum carui*, *Meeso-i*, *Cinnamomum sintoc*, *Sprantu*, *Semen Coriandri*, *Nux moschata*, *Anethum graveolens*, *Alumen*, *Capsicum bicolor*, *Piper cubeba*, *Piper nigrum*, *Kedawung*, *Caryophyllus aromaticus*, *Citrus limonellus*, *Asafœtida*, *Rad. Glycyrrhizæ*, *Cort. Cinnamomi*, *Kajuang-ngien*, *Kæmpferia rotunda*, *K. galanga*, *Allium cepa*, *Ocymum basilicum*, *Drymaria*, *Klabet*, *Flores Bixæ Orellanæ*, and *Djongrabab*.

Djamoe cannot be an inert preparation. The different articles are mixed in definite proportions, always represented by odd numbers, to which great cabalistic importance is attached. They are pulverized on a smooth stone, moistened with lemon-juice and holy water; verses of the Koran are recited during the manipulation, and finally boluses are formed, which are administered in the morning. A more simple *djamoe* contains only eleven of the substances already mentioned, with the addition of *Calamus aromaticus*, *Acorus calamus*, and *temulawak*. Aside from its preservative qualities, *djamoe* is said to be very efficacious in intermittent fever and colic. If the fever does not yield to three or four boluses administered the first day, the lemon-juice, employed in the preparation of *djamoe*, is replaced by urine. In the treatment of colics, a little brandy is added, especially in frequently-recurring cases, where they are brought on by the use of green fruit.

Djamoe, prepared according to the first formula, is extensively used to produce abortion. This is not considered as an immoral or reprehensible act. Married women often procure abortion with the consent of their husbands, and without any effort to conceal it. It is difficult to say whether *djamoe* will alone produce abortion, as other means are employed along with it. However, when abortion is required, or the cure of disease, the consummate experience of some matron often renders the intervention of a *dukun* useless. There is no Javanese family which does not possess a supply of the most common medicines, contained in a casket, along with a stone plate and a kind of pestle—the only instruments employed in the preparation of medicaments. Scales and weights are not used—an approximative guess determines the dose.

Among the different mixtures which these domestic pharmacies contain is a panacea, frequently used, made of *Kæmpferia galanga*, *K. rotunda*, *Curcuma rotund. et long.*, *Allium sativum*, and common salt.

These substances are triturated, and boluses are made, as in the case of *Djamoe*, which are administered at intervals of one or several hours. Frequently it is proposed, in this way, to produce abundant diaphoresis. It, however, produces, at times, colics and diarrhœa, and, if persevered in, dysenteric symptoms, which it would be considered very bad to treat immediately.

Such is the Therapeutics of the Javanese. As they rarely employ a medicament without associating it with a number of others, it is not possible to determine the special action of the different drugs. There are some, however, whose efficacy in certain affections has been de-

monstrated by the most exact experiments. Thus, the root of the Trebah Japan (*Rhinacanthus communis*) seems very efficacious in the treatment of Herpes circinnatus and H. phlyctenoides. A mixture is prepared, by rubbing it with vinegar, which is applied three times a day on the affected portions of the skin. It is ordinarily only necessary to repeat these applications twenty-one times to insure a cure. Among the drugs produced on the island of Java are some that have been long known in our own shops, viz.: cassia, croton, ricinus, &c. Although the Javanese principally seek their remedies in the vegetable kingdom, yet they employ a number of products obtained from the animal and mineral kingdoms—among the latter, copper and arsenic being frequently used.

The excrements of a large number of animals also enjoy great pharmaceutical repute; but the human urine is the most celebrated of all these. When an accouchement progresses slowly, the urine of the husband or of some one else is administered to the woman. This disgusting agent is also popular in the treatment of asthma, and, as a topical agent, it is considered the best of all collyria.

Dysentery has furnished an opportunity to the Javanese doctors to invent interminable formulæ. The treatment is always, and invariably, the same, and comprises a certain number of preparations which are to be successively administered. The compound first employed does not differ from djamoe; at the end of twenty-four hours, if there should be no amelioration of the symptoms, a decoction is made of a large number of substances, among which may be found rice and a large number of aromatic fruits, Cubebs and Capsicum longum. In case the patient is a child from five to ten years old, this decoction is substituted by a powder, which contains *album græcum* of the dog, that has been roasted at a fire and sprinkled with lemon-juice.

It is only when the resources of the domestic pharmacy have been exhausted that the patient is intrusted to the care of some medical notability of either sex. When the Javanese doctor approaches the patient, he fixes a look of attention or inspiration upon him; then pompously draws forth a bag containing the Djimat, (the formula of exorcism,) which is a band of paper covered with Arabic formulæ, and folds it with special care. This bag being placed upon the most painful portion of the patient's abdomen, he prepares the *Dukon*, (reciting, at the same time, a long series of prayers,) and places it under the ear of the patient, with one or more notes covered with hieroglyphs. This being done, he throws a nail, made red hot in the fire, or a magic stone, (*mustika*), into the consecrated water, which the patient immedi-

ately drinks. For a last resort, when all other manœuvres fail, and the pitiless administration of a certain quantity of urine proves inefficacious, another *dukou* is employed. In some extremely rare cases, the treatment is finally intrusted to a European physician, who arrives almost invariably too late.

Blenorrhagia is somewhat common among the inhabitants of Java, and they have a large number of formulæ to combat it. In old cases, they employ frequently a mixture of cubebs, ginger, *Alpinia galanga*, coriander, white pepper, and nutmegs.

From the foregoing, it will be seen that the use of medicaments on all occasions is, among the Javanese, pushed to an extreme rarely met with elsewhere; but after an accouchement, the loosest reins are given to this mania. Whether the labor has been fortunate or not, the woman is covered with layers of countless drugs, either to favor the flow of the lochia, or to keep off all varieties of complication. The delivery is but accomplished, when incontinently a tisan is administered to the mother, prepared of wood cinders and tamarind pulp, or the midwife substitutes for this draught decoctions more or less complicated. The abdomen of the patient is covered with a host of ointments, whose composition varies according to the part for which they are specially designed; and this treatment is continued for weeks, although the most vigorous health of the mother would justify their discontinuance. The new-born child is also subjected to interminable manipulations. The skin is covered with a layer, several lines in thickness, of oils, balsams, and juices of plants—hardly any portion of the body escapes these applications.

Thus far we have written of the indigenous doctors. Java possesses, also, a number of Chinese doctors, and Chinese pharmacutists. The shops of the latter compare favorably with those of the indigenous pharmacutists, so far as order and neatness are concerned. Many of them are arranged like European pharmacies, and contain analogous preparations—the most of which are prepared of substances obtained from the vegetable kingdom. The mineral substances employed by Chinese doctors are very few. They use, however, a number of substances obtained from the animal kingdom, to which marvelous virtues are attributed, and which are selected from the most disgusting products. For example: toad-flesh cures diarrhœa; that of the *Gecko*, tuberculous affections; that of the bat insures long life to him who uses it; while bat's blood and bile are reputed to cure syphilis, and its excrements are employed as an excipient in the preparation of certain pillular masses.

The skeleton of the scorpion, dried and pulverized, possesses diaphoretic virtues, and cures both rheumatism and small-pox. Horse-brain makes the hair grow; the heart of the same animal, dried and pulverized, strengthens the memory; his bones, pulverized, prevent sleeplessness; and the placenta of the mare cures amenorrhœa: but, in order that all these effects should be had, a *white* horse should be employed. Marrow from the bones of the ass, introduced, during sleep, into the ear, cures deafness; the horn of the rhinoceros arrests somnambulism, if placed under the ear while the somnambulist is asleep; pulverized and cooked in wine with the livers of the goose and duck, the same horn will cure hæmatemesis. Tapir-skin is used as a cushion and for mattresses by those who have vicious humors; and its urine is an antidote for copper poisoning.

In addition to the medicaments of known composition, the Chinese doctors of Batavia employ a large number of secret remedies brought from China, prepared with much elegance, and accompanied with attractive advertisements. These are employed to cure divers diseases, or to give convalescents that *embonpoint* which the Chinese value so highly; some have great reputation as aphrodisiacs, and are often employed to prevent impotence.

Most of the Chinese doctors in Java are not of pure extraction, and have never visited China, and hence they are less educated than their *confrères* of the Celestial Empire. But few escape the influence of the Javanese modes of practice. Equally superstitious, they play the part both of sorcerer and physician, and employ the agency of the stars or of a demon in their practice.

This is all very different in Japan. Medicine has there been cultivated with as much zeal as intelligence, and has attained a remarkable development. The old medical school, proceeding from the same stock as the Chinese school, and partaking of most of its doctrines, has not been slow in modifying these by contact, although limited in character, with Europeans, especially Hollanders and Portuguese. In spite of systematic governmental opposition to all innovation, many of the physicians appropriate freely the medical knowledge and doctrines of the foreigners with whom they come in contact; the study of the European languages opens up to them our scientific works, which they seize hold of with the sole desire of gaining information, which is one of the characteristic traits of the nation.

When the new school, during the second half of the sixteenth century, contended advantageously against the old traditions and European Pharmacology, it would have succeeded entirely, had it not been

for the changes which followed the invasion of the Portuguese. The movement suffered thus a period of arrest, which still exists. Nevertheless, the government suffered the importation of a certain number of medicaments brought from Europe, which were obtained almost entirely from the vegetable kingdom. The number of these substances is very carefully limited, and every argument to increase them encounters insurmountable obstacles from the government. In exceptional cases, authority has been granted to import a medicine whose importation has not ordinarily been allowed, when the demand was made by a physician of renown.

China furnishes Japan a much larger number of medicines than Europe; from her all the rhubarb and opium are procured. There are, however, substances of analogous virtues to many of these medicines among the products of Japan. It possesses no vegetable that can take the place of the cinchonas; and quinine is hence allowed to be imported.

Among the inorganic substances, the Japanese doctors prepare some in accordance with the directions of European pharmacopœias: calomel, corrosive sublimate, sulphate and carbonate of magnesia, tartar-emetic, and the different salts of soda and potassa.

Most of the medicines used in Japan belong to the vegetable kingdom, and many of these are used for the same therapeutic indications as in Europe. Benzoin is employed as an expectorant and antispasmodic, opium and nux vomica as narcotics, catechu as an astringent, gamboge as a drastic, asafoetida as an antispasmodic and anthelmintic, myrrh as an excitant, stomachic, resolvent, and antiseptic; mastic is used in hæmoptysis, asthma, diarrhœa, and dysentery; sanguis draconis in hæmorrhages, dysentery, and chronic diarrhœa.

The mineral substances most frequently employed are as follows: Cinnabar, employed especially in syphilis. It is given in dose from 50 to 75 centigrammes, in cigarettes. Three or four such cigarettes are smoked daily, in order to bring on profuse salivation. Mercury rubbed up with syrup, so as to destroy the globules, is also extensively employed, in the form of pills, in small-pox; and also a mixture of mercury and alum, known as *kei-hun*. Tin filings, mixed with syrup, are used as an anthelmintic; and sulphate of iron, dissolved in water, as a hæmostatic.

A number of substances obtained from the animal kingdom are also to be found in the Japanese Medical Arsenal. Musk serves to combat spasms. Certain serpents, carbonized on a slow fire and then pulverized, are used in the treatment of syphilis, lepra, and chronic

exanthems; an analogous preparation, made with *Gécko*, is employed in affections of the kidneys and bladder. Decoction of toads, frogs, and salamanders is reputed to cure convulsions, epilepsy, intestinal worms, chronic catarrhs, croup, tubercles, dropsy, and constipation; powders are likewise prepared from these animals, which are applied on tumors, ulcers, and different cutaneous lesions. The fat of the toad, called *Fiki-Kaheruabura*, is reputed to be very effective in preventing accidents during dentition.

The *cantharis* of Japan is smaller than the species used in Europe, but more active. This is used in vesication, and is administered, in form of powder or infusion, in divers chronic affections of the genito-urinary organs. The Japan leeches are also very small, but they are rarely used.

The indigenous medical drugs are divided, by the doctors of the new school, into five classes, in accordance with their therapeutic action, viz.: acrid, tonic, and astringent; excitant and roborant; nervine and narcotic; resolvent and nutrient. These are distinguished by the Japanese or Chinese names, although most of the physicians are familiar with the names employed in European Pharmacopœias. They administer the medicines as decoctions, infusions, powders, and pills; and tinctures, electuaries, and extracts are also employed. There are no regular Pharmacies in Japan. Drugs are sold in their natural condition, either wholesale or retail, in the shops, where any one, whether professional or layman, can purchase. The physicians prepare and dispose of the various preparations which they prescribe.

—*Gazette Hebdomadaire*.

L. H. S.

Dragées of Iron, Manna, and Bismuth. By DR. MORIN.

The objections to ferruginous preparations may be thus summed up: if they are insoluble, they are frequently useless; if soluble, repugnant to the taste, and fatiguing to the stomach and intestines. The new preparation suggested by Foucher, a pharmacien of Orleans, combines all the advantages claimed for preparations of iron, while it presents none of the inconveniences for which they have so justly been reproached. The formula is as follows:

R.—Ferri pyrophosphat.,	0 05 gramme.
Bismuthi subnitrat ,	0 05 “
Manuæ puriss.,	0.25 “

This is sufficient for one dragée. These medicinal agents, being

thoroughly mixed, will form dragées easily chewed. They are called *manna bismuthic dragées of iron*.

The iron salt, the pyrophosphate, is a fixed salt, constant in its composition, perfectly soluble, without injurious action on the stomach, not decomposable by the acid products of that viscus, and most easily absorbed and assimilated. So much for the true active principle of these dragées. But it is useless to dwell upon *this*, since academic reports, as well as clinical experience, demonstrate the advantages of this salt. As for the subnitrate of bismuth, practice has, to a certain extent, indicated that its addition to iron is indicated logically. Hence, for a long time, a prominent physician of Paris, well known for his protracted investigations on the physiology and pathology of the digestive organs, Dr. Ganbert, has used the subnitrate of bismuth in all young, lymphatic subjects, possessed of great nervous susceptibility of the intestines, whose health demanded the employment of tonics. Subnitrate of bismuth is the hackneyed remedy, so to speak, for all gastralgie pains. Its addition is so physiological, so rational, that it might be asked how it happened that its application, as made by Foucher, had not been made by every one before.

The manna has a double effect: it combats the constipation which the ferruginous preparations excite, and at the same time maintains the pyrophosphate in a permanent state of solution—thus allowing of its absorption throughout the whole extent of the digestive apparatus.

A word must be said as to the form of this preparation. It is almost a case where one might employ Cuvier's expression, "The form is more essential than the substance!" To say *more* essential would be going too far; we shall content ourselves by saying that a medicament in the form of a dragée—a true *bonbon*—particularly pleasant for children, is something not to be despised in numerous diseases, where martial preparations are needed.

To conclude, if we may be allowed to institute a comparison between Foucher's preparation and the other ferruginous preparations, we would say that his dragées are agreeable to the taste, whilst most of the others are disagreeable. His is inoffensive to the stomach, whilst most of the others fatigue and irritate that organ; his does not produce constipation, the others provoke a tedious obstruction of the digestive organs; his remains soluble in the midst of the digestive mucosities, and is promptly and completely assimilated; the others pass through the bowels without being assimilated.—*Gazette des Hôpitaux*.

Action of Chloride of Zinc as a Caustic. By SALMON and MAUNOURY, Surgeons to Hôtel Dieu, at Chartres.

The experiments on which the conclusions here given are based, were made in connection with those already furnished our readers, in the last number of the MONTHLY, p. 188, on the action of caustic potassa. They comprise a series of carefully executed experiments as to the action of chloride of zinc on living and dead tissues.

Chloride of zinc, as compared with caustic potassa, is an agent producing cauterization very slowly. It does not dissolve tissues, but on the other hand, renders them harder and more coriaceous; under the microscope, one can recognize very readily all the anatomical elements of which they are composed. The cauterized surface prevents the ready penetration of the fresh caustic, when it is desired to act at a greater depth; and then it is necessary to remove the eschar, already produced, by caustic potassa, or to cut off the same by the bistoury, or to await its removal, which requires from six to eight days.

It is a caustic which does not spread under the following conditions: 1st. When it is applied on moist or fungous tissues, on a wound, &c. 2d. When the successive layers of the tissue to which it is applied are all of like ready penetrability. But if, under a tissue easily destroyed by the cauterization, an aponeurotic expansion, muscular tissue, &c., be found, it scarcely penetrates these, and spreads through the tissue on which it has been applied, until it doubles, or even triples, the size of the required eschar; hence it cannot, with justice, be said that chloride of zinc destroys tissues like a punch.

It destroys cellular tissue more readily than cutaneous; and the latter more readily than fibrous or muscular tissue, &c. Contrary to the assertion of Girouard, it attacks morbid tissues, such as cancerous growths, with the same facility that it penetrates fungous tissues. If the morbid mass be enveloped with a fibrous covering, the zinc caustic can isolate this mass, but this does not imply the rapidity of its penetration in the morbid tissue when deprived of its envelope. It coagulates the blood even in large vessels, but does not prevent hæmorrhages from following its employment, even when the arteries are only of medium size. Eschars formed by it are soluble in potassa, and this property can frequently be utilized with the view of hastening the termination of cauterizations.—*Gazette Médicale de Paris.*

Spontaneous Cure of Cancer of the Breast.

Guerdan, of Billigheim, having a female under treatment for cancer of the left breast, with swelling of the axillary glands, sent her to Professor Chelius, who pronounced the case not suited for operation. It was decided then to employ the hemlock plaster. The physician was sent for, one evening, in great haste, and finding the patient bathed, as it were, in a pool of arterial blood, he ordered, without any great hopes as to the result, five drops of tinc. ferri. muriat. æther. every half hour. On his seeing her again, she told him that, after her return from the hospital, erysipelas had appeared on the diseased breast, which surrounded the tumor with a dark-red circle, for which she had employed fomentations of cold water. After some days, the circle changed its color from a bluish-red to a leaden hue; the scirrhus breast was covered with sanies; by degrees the whole diseased mass was decomposed into a granulated mass, analogous to a mixture of sanies and gluten, and, in five months, the whole cancerous breast was removed, leaving the pectoralis major exposed. Not only did granulations form a normal cicatrization, but the axillary glands, whose volume had diminished one-half during the suppuration, continued to disappear, until it was difficult to detect them by the touch. There remained nothing abnormal on the cicatrix, except a horny crust, which was kept covered with charpie and flannel. From that time, this person enjoyed good health, presenting no trace of cancerous disease or diathesis, and died eight years after, of an acute pleurisy.—*Echo Medical Suisse.*

L. H. S.

Topical Application for Tumors of the Breast.

There are some benign tumors of the breast, resembling cancer, which are frequently extirpated. Dr. Chabrely has published some observations on certain forms of these tumors, that can be cured without an operation, although months of treatment are required, and frequent applications of the following powder:

R.—Amyli,	grammes 2.50
Pulv. Iodini,	gramme 0.50 to gramme 1.
Morphiæ muriatis,	“ 0.40

This powder is spread on some wadding, and then kept in contact with the diseased part by means of a suspensory bag.—*Bulletin Gén. de Thérapeutique.*

S.

Alum Pastilles.

A Venetian physician, Dr. Argenti, proposes the use of alum pastilles, in place of alum solutions, prescribed as gargles in laryngopharyngeal anginas, in aphony and dysphony of singers, as well as for aphthous ulcerations of the mouth, whether these are simple, scorbutic, scrofulous, mercurial or typhoid. The formula is as follows:

R.—Aluminis,

Gum Arab.,

Sacchari,

Water distilled several times with cherry laurel, ää, q. s.

To make pastilles weighing 40 centigrammes, (6 grains,) containing from 2 to 3 centigrammes of alum.

The mass, being well manipulated, and extended on a sheet of paper, cut up into pastilles and dried at a low heat, furnishes a preparation in which the astringent taste of the alum is mitigated by the other agents, and which can be preserved for some months. The pastilles are allowed simply to dissolve in the mouth, when the saliva bears the medicinal agent to the affected parts.—*Bulletin Gén. de Thérapeutique.*

S.

Glucosuria in Paludal Fever.

Burdel, of Vierzon, has addressed a paper on this subject to the French Academy of Sciences. The results of his researches are thus stated:

1. In paludal fevers there exists a true diabetes or glucosuria.
2. This glucosuria is only ephemeral; that is to say, being the indication of derangements in the organism, it appears with the fever, persists during its continuance, and disappears with it.
3. Glucosuria in paludal fever shows clearly the existence of a special agency destroying the equilibrium existing between the cerebro-spinal and sympathetic systems.
4. This explanation of Claude Bernard is confirmed by the following facts: The more violent the access, the more intense the chill, the larger, also, is the quantity of sugar in the urine—on the contrary, when the attacks have been frequent and have lost their force, and, in a word, the more a cachexy is established, the less sugar is produced.

—*Gazette des Hôpitaux.*

L. H. S.

MONTHLY SUMMARY OF MEDICAL JOURNALISM.

By O. C. GIBBS, M.D., Frewsburg, N. Y.

Bloodletting in Inflammation, &c.—In the *American Journal of Medical Sciences*, for January, Prof. L. M. Lawson has an able article upon the *treatment of inflammation*, with special reference to *pneumonia*, in which the views of Dr. Bennett, of Edinburgh, are strongly combated. Dr. Lawson considers the views of Dr. Bennett, in regard to inflammation and its appropriate treatment, inconsistent with clinical experience and well-established pathological principles. We feel a personal interest in this matter, because we stand committed against the use of bloodletting in pneumonia, and our opinions may have been too imperfectly expressed. We have a high appreciation of bloodletting, as a remedy in inflammation, under certain circumstances. We believe, however, that it has been too indiscriminately employed. It is not every inflammation that is best treated by bloodletting, and this is the point for which we have more especially contended. For the last three years, we have not bled in cases of inflammation of any character, and have seen no occasion to regret it. We have not prescribed bleeding because we object to it as a remedy, but because we have not seen the conditions which constitute a demand for it. In that time, we have, perhaps, treated sixty cases of pneumonia, of all ages, without a single fatal issue. We have sometimes given antimony, always Dover's powder, also quinine sooner or later, and generally the *veratrum viride*. We are of the opinion that, in this locality, we have been, for several years, under a typhoid influence that modifies all diseases. Should we see a high grade of inflammatory fever as was not uncommon ten years ago, we should probably bleed as freely as ever. Many physicians have supposed that all inflammation, especially of the lungs, should be treated with loss of blood, antimony, and perhaps mercury; and that, whatever the age of the patient, or grade of action, quinine was never appropriate in the early stages of the inflammation. It was to combat this error that we have reported cases of pneumonia treated with quinine, opium and ipecacuanha, successfully, with an average duration of less than ten days.

Dr. Lawson considers the statistics of Dr. Bennett altogether unreliable. We have but little confidence in statistical evidence of any plan of treatment.

We do not understand Dr. Lawson as advocating bloodletting in all cases of inflammation, but in opposing the views of Bennett and others, that it is never beneficial, but always prejudicial.

In this view we heartily concur, and the following quotation from Dr. Lawson's paper cannot be too attentively considered: "It is evident, therefore, that a rational treatment must secure to each case its own individuality; and as the shades of differences and the corresponding modifications of treatment cannot be expressed in *groups*, statistics, in this sense, become simply an impossibility. For example, bleeding, antimony, mercury, and blisters may be demanded in one case; quinine, opium, and wine in the next; a third may require but little interference except a well-regulated diet with moderate stimulants; and so on, *ad infinitum*. The treatment of pneumonia demands not a single, but many agents; and he who would attempt to develop results by statistics, will be required to make each group a *unit*. It is the proper *combination* of remedies, and not a single agent or mode of practice, which is capable of securing the best results in the treatment of disease."

While Prof. Lawson admits that there is a lowering of the grade of diseased action of late, which requires less depletion than formerly, yet he is "inclined to believe that the great outcry against bleeding has driven us to the opposite extreme, and we now deplete less than the interests of our patients frequently require." This may be true in some localities; but, as we have observed, physicians have been slow to recognize the lowering grade of diseased action, and have bled beyond the requirements, or, as we believe, the necessities of the present modified forms of disease.

In the *New Orleans Medical and Surgical Journal*, for January, is a paper on *Inflammation*, by Prof. Warren Stone, of New Orleans, that might be profitably read in connection with the paper of Prof. Lawson. We have not space here for an analysis of it, but will take the liberty to quote a pertinent passage or two. Prof. Stone recognizes the propriety of opposite modes of treating inflammation, rendered appropriate, and even necessary, by the circumstances of individual cases. Thus, he says: "In an inflammation, when we can afford to pull down, no great skill is required in the management; but when we are required to build up and lend force to vital actions, much delicacy is required in the management." Further, and more to the point, in regard to the subject of Prof. Lawson's paper, he says: "There is no disease, I believe, in which a fixed routine treatment operates so badly as in pneumonia; and those who have continued the old plan of bleeding, when thought admissible, and giving tart. antimony in the first stage, and calomel in the second stage, have been the most dangerous routinists."

With the above remarks and quotations, we leave two very important contributions to the medical journal literature for January.

Nitric Acid in Remittent Fever of Adynamic Type.—In the *American Journal of Medical Sciences*, for January, Dr. Bedford Brown, of North Carolina, has an article upon the adynamic type of remittent fever and its treatment. We quote the substance of his views in regard to treatment. He says: "While a large majority of patients, suffering from attacks of the simple and inflammatory forms of the disease, will recover under the use of such means as local and general bleeding, moderate purgation, sulph. quinia, mercury, oil of turpentine, &c., these remedies have proved utterly inefficient in the adynamic or malignant types." Speaking of nitric acid in such cases, he says: "The tonic properties of the acid are not due simply to any influence which it may exert on the digestive organs. But that it aids in the formation of the blood, and renders it more plastic and organizable, cannot be doubted." * * * "With these considerations in view, I resorted to the use of this remedy in the treatment of remittent fevers of an adynamic type. The powers of the remedy have been satisfactorily tested in at least forty cases by myself and partner, Dr. Roan. The acid was administered in simple cases, in connection with sulphate of quinia and other minor remedies. To the quinia it has certainly added efficacy. A large proportion of the cases were of a decidedly malignant type. In a sufficient number of these to determine its value the acid was administered alone, with the exception of a few remedies of minor importance. I do not remember a single fatal case after its free and constant use. I am also impressed with the belief that it possesses much power to prevent the development of adynamia when given early. Patients, after the use of it, recovered more rapidly and completely than under the usual treatment. Under the influence of the acid it was pleasing to witness the change of form to a more simple character, by a successive clearing up and subsidence of the alarming symptoms."

Vesico-Vaginal Fistula.—In the above-mentioned journal for January, W. L. Atlee, M.D., reports a successful case of operation for this troublesome affection, accompanied with remarks in regard to the method of operation. Dr. Atlee's plan is a modification of that of Dr. Sims and of Dr. Bozeman, which modifications he considers improvements. While he ascribes great praise to Dr. Sims for the introduction of the silver suture, he yet believes the blue iron-wire is the best, possessing "in a high degree every property belonging to silver, while in other respects it is preferable." He uses the but-

ton of Dr. Bozeman, with some modifications. The button "has a fenestrum along its centre, proportioned to the size of the fistula." He brings the edges of the wound firmly together before applying the button or plate. With the instrument invented by Dr. Coghill, he secures the coaptation of the raw edges of the fistula, with the greatest certainty, by twisting every alternate suture. Having brought the opposite sides of the fistula into perfect contact, by twisting the alternate sutures, these sutures are brought through the fenestrum, while the remaining ones are carried through holes in the button, tightened and fastened with shot, precisely as in the method of Dr. Bozeman. Another improvement, more of convenience than otherwise, is practiced by Dr. Atlee. Each suture, as it is introduced, is fastened to a transverse thread, which arrangement prevents tangling of the wires, and corresponding ends of sutures are found without exposing the fistula. The figures accompanying Dr. Atlee's article make his plan of operation perfectly comprehensible.

In the *New Orleans Medical and Surgical Journal* for January, Dr. Bozeman has an article upon *urethro-vesico and recto-vaginal fistulas*, in which he holds to different opinions, in regard to metallic sutures, from Dr. Atlee. It may be observed here that Prof. Simpson, of Edinburgh, agrees with Dr. Atlee in his preference for the iron-wire over that of silver. Dr. Bozeman thinks the silver is incomparably superior to the iron-wire for ligature in these operations. He says, "I have never yet seen iron-wire remain in the tissues, even a few days, without being turned black. Not only this: I have always observed, where there was much dragging upon the sutures of this metal, they would cause ulceration, and frequently cut out."

In the *London Lancet* for February, (American reprint,) Dr. Isaac Baker Brown has an article upon the above subject. He has now operated 27 times with but one failure, a success perhaps greater than any other operator. Dr. Brown seems rather indifferent whether the silver or iron wire is used. He thinks, however, he has made great improvement over Bozeman's button, in the use of bar clamps. These clamps he thinks possess many advantages, among which the most important are that the edges of the wound may, with *certainty*, be held "in perfect apposition all along the fistula," and "that, however irregular the opening, you can follow its tortuosity without the slightest difficulty." In the *Nashville Journal of Medicine and Surgery* for February, Prof. Paul F. Eve has an article upon the above subject, in which he proposes a *screw-clamp* and the *twisted suture*. For

his method he claims many advantages, but which we have not space at present to particularize.

Hydrophobia.—In the January number of the *American Journal of Medical Sciences*, Dr. J. E. H. Ligget, of Middleburg, Md., reports a case of hydrophobia, successfully treated with drachm doses of calomel. The patient was first bled to the amount of 36 ounces, and then drachm doses of calomel were ordered “to be repeated every four hours, if the symptoms remain unabated. If the spasms decline in frequency and violence, the intervals to be lengthened to six or eight hours.” Ptyalism was well established on the third day. Opium was given occasionally, and quinine to counteract the tendency to exhaustion. The patient was discharged cured on the 11th day of treatment. Dr. Ligget says, “The increased flow of saliva appears to be a conservative effort of the *vis medicatrix* to eliminate the poison from the system, through the glands engaged in its secretion.” This opinion forms the basis of his treatment. The theory of its action is of but little importance, if the utility of the treatment be established by subsequent experience.

Diphtheria.—In the *New Orleans Medical and Surgical Journal* for January, Dr. S. L. Bigelow has an article upon the above subject. Diphtheria has been a fruitful theme in journal literature for some time past. We have endeavored to keep our readers thoroughly informed in the more important opinions in regard to treatment. Dr. Bigelow thinks “diphtheria rarely occurs as a sporadic disease, almost invariably as an epidemic,” and he is strong in the belief that “if there exists a mediately *contagious* disease on earth,” it is the disease under consideration. Of its nature he says, “It is evidently a typhoid disease, and as such must be treated from the start; it is a septic disease, and as such must be combated at the earliest moment; it is accompanied by local accidents, and they must be treated as they present themselves.”

It would require much space to give Dr. Bigelow’s treatment in all its minuteness; as we consider it quite important, we shall, as briefly as possible, give it in substance. He says, “First, then, I advise at my first visit an insufflation of about a drachm of very dry powdered burnt alum, whether I find a commencement of the plastic deposit on the tonsils, or in the pharynx, or not.” * * * “At the same visit I also advise a tepid bath of an hour’s duration at least,” * * * “and a purge of citrate of magnesia.” * * * “I prefer the alum as a topic most decidedly to nitrate of silver, as it forms no eschar to blind you at your next visit, with regard to the exact state

of things in the throat, and also because I have found it really more potent in its good influence as a local application. The tongue is to be held down with a large spoon, and the alum blown in through a single glass tube, six or eight inches long, and one-fourth of an inch in diameter, at the moment when the presence of the spoon in the fauces causes the involuntary act of gagging on the part of the patient. This insufflation I order to be continued every hour until my return." His first general treatment "consists in the administration, every three hours, of ten grains of the chlorate of potash, and ten grains of the bichlorate dissolved in some convenient vehicle, with the administration ordinarily of one-tenth of a grain of calomel in sugar, dry, upon the tongue, every hour or every two hours, stopping and recommencing its administration according to circumstances, which can only be explained or appreciated by the physician at the bedside." * * "In addition to the above, I commence immediately with the use of tonics, stimulants, and the most nourishing possible fluid animal food. Quinine every three hours, in as large doses as can be borne, without producing severe cerebral perturbation; bitters composed of cinchona, gentian, columbo, chamomile, quassia, bitter orange-peel, &c., formed into a strong infusion, to which I add brandy, and a little syrup." This constitutes Dr. Bigelow's treatment, divested of its minutiae of detail. We said last month that we should expect benefit from an occasional emetic; Dr. Bigelow prefers to remove the pseudo-membranous deposit with long forceps, or by scraping, &c., instead of by emetics, of which he says, "I have never yet prescribed a single grain of emetic in a case of *angine couenneuse*, and I hope that it may never be given me so to do." Of bleeding he says, "I would as soon put my lancet into the vein of a moribund typhique, as to take an ounce of blood from a patient with membranous sore throat under any circumstances of the disease which I have ever witnessed, or can imagine."

In the *British and Foreign Medico-Chirurgical Review* for January, Dr. J. B. Sanderson has an able article upon the pathology of the disease under consideration. We have not space at command to give it an analysis. The article is illustrated with the microscopic appearance of the pseudo-membranous exudation.

In the *Chicago Medical Journal*, for October, November, January, and February, Dr. W. G. Dyas has an able series of articles upon the subject of diphtheria. Dr. Dyas' views of the pathology of this disease do not differ materially from those of Dr. Barker, of New York, whose opinions were given last month. He says: "In croup, there is increased fibrin in the blood, not a putrid crisis, nor a tendency to it,

as in diphtheria: in the one, there is the sthenic type of fever; in the other, a typhoid, or even no fever whatever; the former is not preceded by a depressed, nor followed by a cachectic state; these conditions more or less usher in or supervene on the symptoms of the latter." In the *Journal*, for February, Dr. Dyas enters rather fully into the subject of treatment. He does not favor the administration of calomel, in any case of this disease, except as a cathartic. In regard to emetics, his opinion corresponds with that expressed by us a month ago, but does not accord with that expressed by Dr. Bigelow, as quoted above. He says: "Emetics are occasionally serviceable, especially in young children, at the period of the invasion of the disease, and when the false membrane extends to the trachea. They should never be omitted when, together with fever, there are foul tongue, want of appetite, and nausea early in the complaint." * * * "Independently of their removing morbid secretions, emetics seem to effect some change in the nervous system that controls and directs the physiological transformations of the blood; and when these transformations are abnormal, the deviation from the healthy state may be corrected or modified by some impression resulting from such change." Dr. Dyas thinks that it is upon stimulants and tonics that we have mainly to depend, in the treatment of the disease under consideration. He says: "The best tonic, perhaps, that can be used in this complaint, is the bitter wine of iron, as prepared by Mr. Thompson." The following is a summary of his treatment: "Early in the attack, the administration of an emetic—then a gentle purgative of some mild preparation of mercury and rhubarb, and the application of a 30-grain solution of nitrate of silver to the fauces. Immediately after the bowels shall have been moved, tincture of sesquichloride of iron should be commenced with, alternating the doses with port wine and beef-tea, and at the same time the throat may be enveloped in flannel, steeped in some stimulating embrocation. Some prefer a large poultice of chamomile flowers, whilst others object to all moist applications of this kind. Under no circumstances whatever should leeches or blisters be applied, as they not only tend to a still further depression of the system, but are apt to be followed by cutaneous diphtheria."

Tobacco in Rattlesnake Bites.—In the *New Orleans Medical and Surgical Journal*, for January, Dr. Peake, of Mississippi, has an article upon the antidotal properties of tobacco over the poison of the rattlesnake. He says the efficacy of this remedy is well understood by planters in Arkansas. His own experience is thus given: "While engaged as a land surveyor, one of my chain-bearers was bitten on the

dorsum of the foot by a rattlesnake of the largest kind. It was in the month of August, when the poison of this snake is supposed to be more deadly than at any other time. In less than five minutes I had him chew and swallow near two ounces of common chewing tobacco. It did not cause him to vomit; indeed, so far was this from being the case, that he was not even nauseated by it. His limb swelled but very little, and he was up and about the next day, well."

Under such circumstances, and where Bibron's antidote is not to be had, it would be proper to give the tobacco a further trial. We should, however, about as soon expect recovery to follow the bite, as the administration of *two ounces* of tobacco.

Endermic Medication.—Of late, *hypodermic* medication has attracted considerable attention; but perhaps no more than it deserves. It is, however, quite possible that the merits of *endermic* medication may be neglected in the furor for the new and more difficult hypodermic plan. In the January number of the *New Orleans Medical and Surgical Journal*, its very able and industrious editor, Dr. Bennet Dowler, has a lengthy article *On the Modes of Medication*. We have not space for its analysis, though the article is one of much merit. We will, however, not pass the article without referring to one case therein illustratively alluded to. In a case of *delirium tremens*, in which morphine to the amount of three or four grains daily, and subsequently laudanum in tea-spoonful doses, had been administered for several successive days, Dr. Dowler used laudanum externally, with the effect of speedily putting his patient to sleep. For seven days the patient had not slept, notwithstanding these large doses of morphine and laudanum. Dr. Dowler says: "Next morning a drachm of laudanum was rubbed on the epigastrium, and the same quantity three hours afterwards. Unexpectedly, soon after the last application, he fell into a good sleep. In two days after, he left his bed."

We are confident the endermic method of administering remedies is too much neglected, especially in some cases of gastric irritability.

Stomatitis Materna.—In the *Southern Medical and Surgical Journal*, for January, Dr. D. S. Brandon has an article upon the pathology and treatment of the above-mentioned disease. He is of the opinion that the oil of turpentine will be found to be the most efficient of all known remedies. He says: "I have used it, and caused it to be used, in quite a number of cases since the first of last year, when I began its use, and in no instance that I know, or have heard of, has it failed. If the bowels are costive, I premise a dose of castor oil; then give the turpentine, say twelve drops three or four times a day on a little loaf-

sugar. If there be diarrhœa present, I use equal parts of laudanum with the turpentine, as above." * * "The cure is usually effected in from five to eight days; very bad cases may require more time." However decided may be the benefit to the mucous surfaces, resulting from the use of the turpentine in this disease, we should hardly expect to remedy the constitutional impairment, which always accompanies these cases, without the aid of more decided tonics.

Strychnia in Seminal Emissions.—In a former number of our *Summary*, we made the following remark: "We are confident that the remedial powers of strychnia are not yet fully brought out." This forms the text of an article, by J. McF. Gaston, M.D., of Columbia, S. C., published in the *Southern Medical and Surgical Journal*, for January. From that article we extract the following: "In that deplorable condition attended with involuntary seminal emissions, I have tested it fully and satisfactorily during a series of years, and it really has served my wishes so completely in these cases that I now use no other course of treatment. With a view to secure the best effects from it, a proper regimen should accompany its use; and with such a course, it may almost be regarded as a specific in spermatorrhœa."

Wound of the Brain.—In the *New Orleans Medical News and Hospital Gazette*, for February, Dr. G. Devron reports an interesting case of punctured wound of the brain. The wound was made with a pocket knife, "at a point nearly corresponding to the junction of the sagittal and lambdoidal sutures." The blade was driven completely through the skull and broken off. The patient rested well the first night, and took his meals through the day without complaining. No symptoms of any urgency presented themselves for the first forty-six hours; he then complained of pain in the head, gradually lapsed into a state of coma, and died. On examination, the blade was found "penetrating the brain to the depth of two inches." This case is interesting because of the comfortable condition of the patient for nearly two days after so grave an injury, and because of the sudden death after the first manifestation of pain, or other unpleasant symptoms.

Tongue Removed by the Ecraseur.—In the *New Orleans Medical News and Hospital Gazette* for February, Dr. S. Choppin reports a case of removal of the tongue, for cancer, with the écraseur. The operation lasted fifteen minutes, and was accompanied with no hæmorrhage. This operation is usually accompanied with considerable hæmorrhage, and it is highly probable that the écraseur is, in such cases, a valuable surgical appliance.

Radical Cure of Hernia.—Dr. Choppin, referred to, is an earnest

advocate of the Wurtzer plan of operating for the radical cure of hernia. He has operated many times with success, and has demonstrated, by post-mortem examinations of subjects operated upon years before, that positive occlusion of the canal had taken place; thereby rendering the recurrence of the hernia impossible. The editors of the *Medical News and Hospital Gazette*, referring to Dr. Choppin's operations, and his lecture upon this subject in the Charity Hospital, say, "We have several times before called attention to this most valuable operation, and offer no apology for repeating our opinion, that it is one of the most important surgical innovations of the age, if not absolutely the most important." Several eminent surgeons have ridiculed this operation; but, really, we hope the views and experiences of Prof. Choppin may be proved to be correct by subsequent clinical observation.

Radical Cure of Hernia.—In the *Medical Press*, for February 11th, Dr. J. W. Rosebrugh reports a case of hernia apparently cured, after two operations after the plan of Wurtzer. He says: "The inguinal canal was so large that *three* good-sized fingers could be introduced into it." Hopes of success were entertained after the first operation, but after a month the patient felt something give way, and a fold of intestine descended into the scrotum. On reducing the hernia again, "the canal was found to be so small that the point of one finger could scarcely be insinuated into it." Encouraged by a partial success, the operation was repeated, and three months after there is every prospect of a radical cure.

Prof. J. C. Nott, of Alabama, writing from London to the *New Orleans Medical and Surgical Journal*, and speaking of this operation, says: "In Paris, I talked with Velpeau, the Nestor of French surgeons, with Nelaton, and others, and they all say that Wurtzer's operation, or any other on similar principles, cannot be relied on, the disease returning in the great majority of instances. In fact, the operation is scarcely performed at all now in Paris." Opposed to these views, we may instance the following, as the most recent, in addition to those previously referred to. One of the editors of the *New Orleans Medical News and Hospital Gazette*, in the February issue, says: "The fact that the radical cure of hernia can be nearly always accomplished by the method under consideration is no longer to be disputed, and he who sneers at it is only furnishing a stick with which to have his own head broken."

In the *Charleston Medical Journal and Review* for January, Dr. T. L. Ogier reports twelve successful operations by Wurtzer's method, and he says he has performed nineteen other successful operations, not included in his report. Dr. Ogier concludes his report thus: "Recent cases, in subjects under forty years of age, are always successful, and as far as my limited experience goes, quite free from danger."

In the paper of Dr. Rosenbrugh in the *Medical Press*, the author says he was not aware that the operation of Wurtzer had ever been repeated in the same individual. In the *Medical Times and Gazette* for August 6th, 1859, Dr. Redfern Davies reports forty cases of this operation, in *five* of which the operation had to be repeated. He says, "Where the rings are very large, and relaxed, the operation is sometimes unsuccessful, and has to be repeated." Out of Dr. Davies' 40 cases, "but two were complete failures, and of these one was owing to supervention of small-pox."

If the operation for the radical cure of hernia is seldom resorted to in Paris, as we are led to believe by reports, it is frequently and successfully performed both in England and America.

Induction of Premature Labor.—In the *Louisville Medical Journal* for February, Prof. Henry Miller has an article upon the induction of premature labor and abortion, with cases. We refer to it for the purpose of quoting his method of using the *uterine douche*. He says, "For this purpose an apparatus was constructed according to the directions of the German professor, (Kiwisch,) with only a slight and important variation, consisting of a tin box, ten inches square, holding about four gallons, with an india-rubber tube, twelve feet long, attached to the bottom of the tin box by a screw and nut, and having a metallic tube, six inches long, affixed to its other extremity—the end of the metallic tube being fashioned like the nozzle of the common enema syringe. Instead of arranging the apparatus to act on the principle of the siphon, as recommended by Kiwisch, a stop-cock was adapted to the india-rubber tubing, about two feet from its metallic end. To put the apparatus in operation, the box must be suspended on a nail driven into the wall, near the ceiling of the room, say nine or ten feet above the floor; the india-rubber tubing must be screwed on, and the stop-cock turned, so as to prevent the flow of the water till it is wanted. The patient takes her seat on a stool placed in a bath-tub to receive the water, the metallic nozzle is introduced into the vagina, and in contact with the os uteri, and the tin box having been previously filled with water, the stop-cock is turned, so as to pour a continuous stream upon the os uteri until all the water in the

box is discharged." Prof. Miller uses the water warm at first, and, if need be, subsequently alternates cold and warm. In the successful case reported, the *douche* was used but once on the first day. On the second, third, and fourth days, it was used twice each day. On the fifth and sixth days he used warm, and then cold immediately after, using the warm and cold *douche* each twice each day when labor set in.

The fact that the *douche* will sometimes fail in inducing labor, and the number of times it has to be repeated before success crowns the effort, will always operate against this procedure. We prefer the separation of the membranes, which can be done at one sitting, is usually safe when properly performed, and is always successful.

Influence of the Mother's Mind on the Fetus in Utero.—In the *Nashville Journal of Medicine and Surgery* for February, Prof. John M. Watson has an able article upon the influence of the mother's mind on the foetus in utero. He believes the mother's mind may, under certain circumstances, produce changes in the organization of the embryo in her womb, and the reasons for his faith are well stated. We have not the space to follow his arguments, and will content ourselves with stating his fifth and sixth propositions: "5. The mind, when improperly employed, may develop premature puberty, premature ova, and premature menstruation, to which may succeed premature conception; and all the energies of both soul and body being directed to this uterine function, may not certain images, under strong mental excitement, be transferred to the embryo? Seeing that the mind can exert such remarkable and undeniable influences over the female organism, may I not add a sixth fact? 6. That the embryo is sometimes altered or changed in its organization in various ways, through the mother's mind or imagination; or shall we admit the influence of the mother's mind over her in every other respect, and then exempt the organization of the embryo from its influence?"

Transfusion.—In the *Chicago Medical Journal* for February, Prof. Brainard reports a case of amputation of the thigh in a feeble subject, in which life was temporarily saved by transfusion of blood. He says: "In order to obviate the danger from loss of blood, I had an assistant hold a bowl under the member at the moment of the incision; in order to catch the blood, and stir it, so as to separate the fibrin, the bowl was placed in another containing water at the temperature of 98°. When the bone had been sawed, and the small vessels secured, the patient appeared to be dying from syncope. I then fixed the tube of the transfusion syringe into the femoral artery where it had been divided upon the stump, and the syringe at the proper

temperature; I charged it with the defibrinated blood, which had been actively agitated, so as to be of a bright red color, and threw gently into the artery nearly all the blood which had been secured. A light tremulous movement followed, and for about a minute no change was perceptible; but at the end of this time the respiration and the action of the heart became more regular, and he was soon as well as before the operation. The blood thrown into the artery was just two ounces." We have space only to quote another practical remark in this connection. Prof. Brainard says: "The choice of the artery instead of a vein for the transfusion was made for these reasons: 1st. It obviates the danger of fibrinous clots passing to the heart. 2d. It diminishes the danger of air-bubbles passing to the heart. These are the great dangers of transfusion."

Chronic Rheumatism.—In the *Cleveland Medical Gazette* for February, Dr. G. L. Purdy has an article upon the treatment of chronic rheumatism with the *sulphurous vapor baths*. We give Dr. Purdy's method of using the bath: "I had my patient stripped to the skin, and seated on a tight-bottomed chair, thickly enveloped with flannel blankets from the shoulders downward. Place the blankets tightly around the neck, and have them fit snugly to the floor, around the patient's chair, but as far from it as you conveniently can, so there will be no danger of their taking fire from the flames of the sulphur. Now place under the patient's chair an iron vessel containing one-fourth of an ounce of sublimed sulphur of the shops, and upon the sulphur place a small piece of red-hot iron, and combustion immediately takes place. If the vapor should escape through the blankets too much, and thus annoy the patient, place more covering around him, or keep the vapor from the face with a fan.

"The patient should be thus vaporized 20 or 30 minutes, or until a very free perspiration is got up. If the sulphur burns out too soon, add some more. When the bath is discontinued, have the blankets removed, and the patient well sprinkled with half a gallon of cold salt water, and thoroughly dried with brisk friction, and placed in bed, warmly covered, for three hours. The bath should be used once every second day."

Dr. Purdy reports one case that resisted thorough treatment for five months, at the hands of all kinds of physicians, that was completely cured in two months, under the use of the sulphurous vapor baths, with the addition of no medicines, except what had previously been thoroughly and ineffectually tried. This is not new treatment; it has been recommended previously by several good prac-

tioners; but it is probable that it is too much neglected in this country. As an article of medicine, it is probable that sulphur receives too little attention. The late Prof. Physick used to say, "If sulphur were a dollar a pound, it would be a very popular medicine with the medical profession."

Water Dressings.—In the *Louisville Monthly Medical News*, for January, Prof. J. B. Flint has a very interesting article upon *water dressing in surgical practice*. We allude to this paper because it is well worth a thorough study. We have long since been convinced that patients have been unnecessarily troubled with counter-irritants, with the ostensible object of preventing suppuration, perhaps as often with injury as benefit. In synovitis and textural inflammations, we think that the soothing influence of aqueous vapor will prevent supuration quite as often as blisters, &c. We would not be understood as objecting to blisters, and counter-irritation in general, but to the too exclusive resort to such means to the neglect of the more comfortable applications of appropriate water dressings.

Prof. Flint is much in favor of the "vapor dressings," and we quote the following as a very good way of applying them. He says: "No particular, in the details of the antiphlogistic medication we are considering, is more essential to its successful administration, than the careful expression of all superfluous water from whatever substance is used as the means of evaporation. We cannot too explicitly insist upon the understanding, that it is not the application of *water* that we prescribe, but *the vapor of water*." * * * "An estimable lady, as ingenious as she is assiduous and gentle, in attentions to her sick friends, exhibited to me, a few months since, an improved method of preparing the epithem, in warm water or vapor applications. The folded flannel, of proper dimensions, is to be wrung out of cool or tepid water, and being spread out on a firm surface, the heated flat-iron of the laundress is moved over it till it becomes a receptacle of hot moisture, the nurse or attendant being thus spared the scalding and hurry attending this portion of duty to the sick, when performed in the usual way." We have often applied the wetted cloths to the clean top of the cook-stove, thus filling the cloths with hot moisture, with less trouble than in any other way. The wet cloths should always be covered with some retentive covering, or, what is better, oiled silk. "One of the most common mistakes respecting the practical use of water dressings consists in confounding their action with that of poultices." In applying the *vapor dressing* to wounds, he says: "A fold or two of patent lint, thoroughly moistened with hot water, are pressed

or wrung out, and quickly laid upon the diseased surface; a piece of oiled silk is immediately, but lightly, placed over it, and the dressing is complete."

Scarlet Fever.—Prof. J. W. Benson, junior editor of the *Louisville Medical News*, in the January number of that journal, has the following in regard to the treatment of scarlet fever: "In twenty-five successive cases of this disease, which have been latterly under my professional care, the treatment consisted in inunction of the parotid and submaxillary regions by an unguent composed of fifteen grains of the extract of belladonna to an ounce of simple ointment. This was applied freely and frequently as soon as the patient complained of sore throat. A piece of flannel was afterwards applied, and in no case was any other treatment adopted, except the administration of small quantities of neutral mixture during the day. In some cases of rapidly occurring tumefaction of the throat, the prompt subsidence thereof under the treatment left no room for doubt as to its efficacy. I do not pretend to offer this mode of treatment either as a cure for scarlet fever or as the sole means to be relied upon in any case, but I do claim for it a controlling power over the engorgement, and hence a prevention of those destructive ulcerations of the throat which are so much and so justly dreaded." From what we know of the effects of belladonna in the treatment of mammary inflammation, we should certainly expect benefit from this treatment in the glandular symptoms of scarlatina. In a severe form of any disease acknowledged to be constitutional, as is scarlet fever, we should never have sufficient confidence in any local treatment to the neglect of constitutional means. As an auxiliary to remedies of well-established utility, we hope much from the suggestion of Prof. Benson.

Asthma.—In the *Louisville Medical News*, for February, Dr. W. H. Newman has a paper upon asthma, in which some opinions are expressed differing somewhat from those usually received as true. He says he cannot believe that the dyspnoea, which is called asthma, "can be produced by a spasmodic constriction of the pulmonary air-tubes. I cannot believe that those tubes have the power of contracting by spasm. In fact, I doubt even if those tubes possess any muscular fibre whatever, entering into their composition." He expresses his belief that "asthma is not produced by a spasmodic constriction of the pulmonary air-tubes, nor by any nervous disorder, but is owing to some disordered state of the mucous membrane lining the air-tubes, and probably the pulmonary vesicles also, by which the free entrance and exit of the oxygen and carbonic acid are hindered or prevented." He

promises to give his views of the true pathology of this disease in a future paper, in which event we shall take pleasure in bringing the results before our readers.

Treatment of Epilepsy.—In the *Southern Medical and Surgical Journal*, for February, Dr. Trent, of Richmond, Va., reports two cases of epilepsy cured with the *hydrocyanate of iron*. His formula is the following:

R.—Hydrocyanate ferri,	3j.
Pulv. valerianæ,	3ij.

Make into pills, No. 120. Dose, one pill three times per day, gradually increased to four pills a day."

This treatment is not original with Dr. Trent, but, if we rightly remember, was first used successfully by Dr. McGugin, of Keokuk, Iowa. To the above formula one drachm of extract of cannabis indica is added by Dr. McGugin.

Dysentery.—In a clinical lecture in the Pennsylvania Hospital, by Francis G. Smith, as per report in the *Medical and Surgical Reporter*, saline cathartics are recommended. We quote from the *Reporter*: "In his own practice he had preferred to use Rochelle salt. Of this one ounce was to be dissolved in a pint of cold water, and a wine-glassful taken every hour until a bilious evacuation was produced. It was then to be stopped, and ten grains of Dover's powder given. This, in most cases, was followed by the cessation of the disease." * * * "Of the fact there was no question, that the saline treatment had proven more successful in his hands than any other."

Dr. Smith says that the treatment of acute dysentery was first proposed by a French physician some years ago. This may be so; but if so, the Frenchman's claim to originality must date back at least a quarter of a century.

In the spring of 1855 it was communicated in a letter to Prof. George Mendenhall, by Dr. D. B. Dorsey, both of Cincinnati. Dr. Dorsey said he had treated dysentery with saline cathartics, as specified in the communication, for more than *twenty years*. Dr. Dorsey learned the peculiar plan of treatment from Dr. F. Lemoyne, of Washington, Pa. Dr. Mendenhall published Dr. Dorsey's letter in the *Western Lancet*, for June, 1855. Ever since we commenced to treat disease, we have treated dysentery with cathartics and opiates. On reading Dr. Dorsey's letter, we were favorably impressed with the propriety of the proposed treatment, and disposed to give it a trial because he had used it for 20 years, and in two or three severe epidemic visitations of that disease, with only one fatal case. We have ever

since relied upon it, especially in adults, and previously, on two occasions, have commended it to the profession.

As the formula under consideration differs somewhat from that used by Dr. Smith, and because it may be new to many of our present readers, we subjoin it here:

"R.—Saturated solution sulph. magnesia,	f. ℥vij.
Aromatic sulphuric acid,	f. ℥j.

Mix." * * "The medium dose of this medicine for an adult is one table-spoonful, diluted with two or three ounces of water, every four to six hours, until it gently moves the bowels." * * "Accompanying each dose, when the pain and tenesmus are great, one-sixth of a grain of sulph. morphia may be given." The dose of the mixture and of the morphine will both require variation to meet the wants of individual cases.

Scarlatina.—In the *Journal of Materia Medica*, for February, Dr. Joseph Bates has an article upon scarlet fever. We quote the following: "Dr. McGugin, of Iowa, in referring to the use of ammonia in this disease, says that instead of it, he has used, in an epidemic of scarlatina, during the present winter, chlorate of potassa, in combination with veratrum viride; it was of the anginose variety, and every case was controlled in a few days. He gave the veratrum with the solution of the chlorate, each in doses appropriate to the age of the patient, using the salt as a gargle. Dr. Bostwick mentions a number of cases attended with high fever, and pulse 120 to 140; some of them delirious on his first attendance. He treated all with veratrum and tonics, also applied sinapisms to the throat. In some, attended with cough and excessive secretion of mucus, he vomited the patient by one or two additional drops, with great relief. In several cases of this disease, which the writer has treated within a few weeks, all successfully, without witnessing one unfavorable sequence, he has relied mainly upon *veratrum*, *quinine*, citrate of iron, brandy or whiskey, nitrate of silver, and chlorate of potassa.

PROCEEDINGS OF SOCIETIES.

Medico-Chirurgical College. January 26, 1860. Dr. JAMES BRYAN, Chairman.

DR. LEWIS A. SAYRE, who was appointed to read a paper on *Morbus Coxarius*, stated that he had not prepared a paper on the subject, but would make a few remarks upon the disease, and explain an apparatus which he had contrived, to be used in the treatment of the same during its earlier stages. He divided the disease into three stages, as follows:

The *first* is the inflammatory condition of the disease, having its origin from a fall, blow, injury, or other extraneous accident, which will induce a synovial inflammation of the hip-joint, and occurring in a strumous constitution, will go on, unless arrested, until the cartilage and bone are involved; finally terminating in what is called morbus coxarius, and resulting in the deformity, ankylosis, or shortening which are peculiar to this disease—or death. The symptoms in this stage, such as pain in the knee, imperfect flexion, pain or pressure of the trochanter, or percussion of the knee, &c., &c., he would not dwell upon, as they were familiar to all. He would merely remark upon one symptom—that of pain produced by pressure, bringing synovial membrane in contact—that it was a remarkable fact, that in the healthy condition the synovial membrane bore pressure, without the least sensation, as proved by jumping from great heights and striking upon the heels, producing no pain whatever. Yet when this membrane is inflamed, the slightest amount of pressure produced the most intense suffering; and hence the necessity of *removing all pressure* from this delicate and sensitive membrane, when in a state of inflammation. This inflammation, unless arrested, will produce effusion, and if it be of much amount, will produce a *peculiar* deformity, viz.: an *apparent* elongation of the limbs; *eversion* and *abduction*; flattening of the nates; the rima nates on the diseased side being lower than on the sound side; flexion of the thigh on the pelvis, and the leg slightly flexed upon the thigh. If the effusion be excessive, or the inflammation acute, you will have an *apparent* ankylosis, caused by muscular contraction, which is an involuntary act, produced by reflex action of the inflamed or irritated nerves, *and is done for the purpose of keeping the joint perfectly still*; which is the indication for the surgeon to imitate this action, and accomplish this result, of *perfect rest* to the inflamed synovial membrane, by artificial means, and thus save the necessity of

this *constant* muscular effort, which, continuing day and night for months, eventually exhausts the system and brings on hectic fever.

The flexor muscles of the thigh, the tensor vagina femoris, the pectineus and rectus femoris are so firmly contracted that the whole pelvis moves on the opposite acetabulum; and you will distinctly see the ilium of the opposite side move, upon any attempt to rotate, adduct, or abduct the diseased limb. Even under chloroform this motion takes place, as I have seen in several instances.

This does not depend upon true or bony anchylosis; for by division of the flexor and adductor muscles, or by puncture of the joint, you will have free motion of the limb, showing that there has been no bony anchylosis. This is the *second* stage of the disease, and if it be not arrested, ulceration of the capsule takes place, and the fluid, whether pus or plastic lymph, becomes effused in the surrounding tissues, and in the majority of instances burrows in various directions, and finally produces an external opening—in different portions of the thigh—sometimes only one, but frequently more, and in many instances some distance from the affected joint. The capsule being thus ruptured, we have the *third* stage of the disease, and the peculiar change that takes place in the deformity occurring so suddenly has led to the false idea that a luxation had taken place. The limb is now apparently shorter, adducted, inverted, flexed in *hip only*—pelvis raised—projected backward; in fact, the position is almost the reverse of what it was in the second stage, and thus occurs *suddenly* upon the perforation of the capsule.

SECOND STAGE.	THIRD STAGE.
Limb (apparently) longer.	Limb (apparently) shorter.
“ abducted.	“ adducted.
“ everted.	“ inverted.
“ flexed in both joints.	“ flexed in <i>hip</i> joint only.
Foot touches the ground with sole.	Foot touches with ball only.
Pelvis lowered on diseased side.	Pelvis raised on diseased side.
“ projected forward.	“ projected backward.
Nates low and flat.	Nates high and round.
Pain most intense.	Pain greatly diminished.

TREATMENT.

In the treatment of this disease, in its first stage, local depletion, by leeches or cups, is often necessary, with a relaxed condition of the bowels. But the most important of all, and on which all prospect of success will depend, is *rest of the joint*, and *perfect freedom from pres-*

sure of the *synovial membrane*, together with such constitutional remedies and general support of the system which we find requisite in all strumous diseases. The use of issues, at this stage of the disease, as formerly employed, he condemned, as they often aggravated the disease, if they did not hasten the death of the patient. When left to itself, the rest which is so essential to the joint is procured by the firm muscular contraction which prevents the motion in the joint, and is so perfect, as in many instances to assume the appearance of genuine bony ankylosis. But this *constant muscular contraction* exhausts the nervous system, and induces hectic fever; gives the child nocturnal spasms, of intense agony; prevents nutrition of the limb, which results in atrophy. We therefore resort to artificial means to produce this rest, and divide the firmly contracted muscles, to prevent the head of the bone from being pressed against the acetabulum.

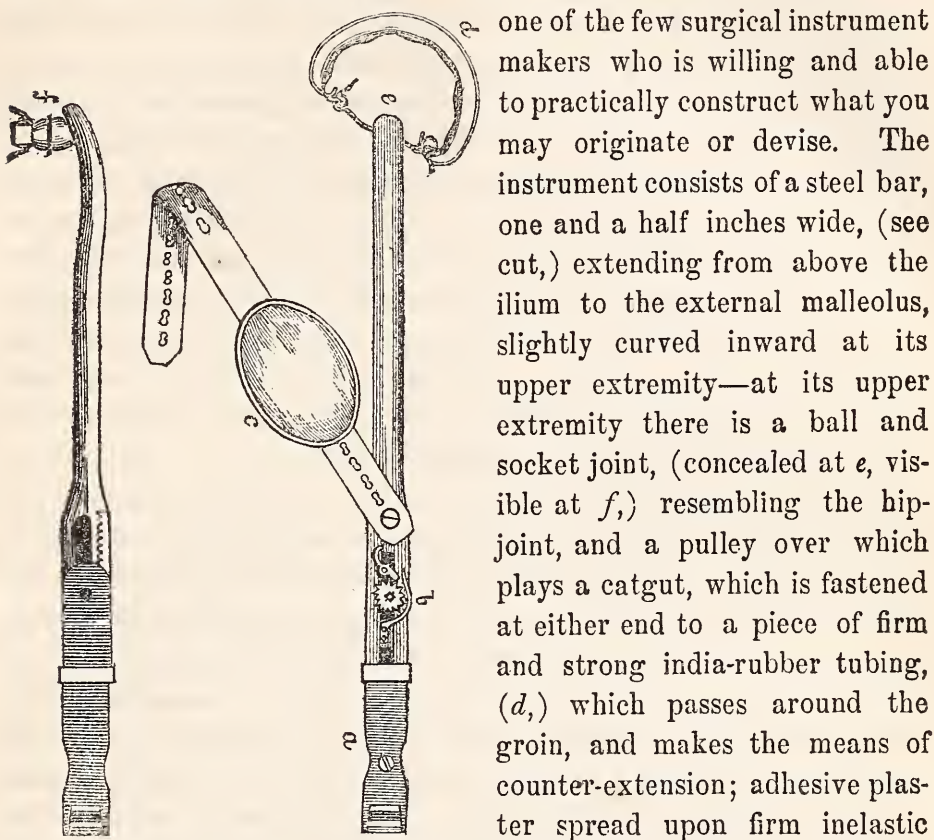
I have treated a number of cases in this way, after the plan of Dr. Bauer, of Brooklyn, with the happiest results; using as a means of rest and extension his "Wire Breeches," an apparatus for the treatment of this disease, in some of its stages, which is far superior to any other that I have ever seen or heard of.

The great difficulty to be overcome in securing *entire rest* of the joint, is the danger of producing bony ankylosis, resulting from the general inflammation of the surrounding structures, and sometimes great stiffness and partial ankylosis of the well joints. On the other hand, if we remove the instrument, and commence passive motion, *without keeping up extension*, there is danger of reproducing the inflammation.

I have, therefore, come to the conclusion that *perfect rest*, however essential it may be to an *inflamed synovial membrane*, is not only unnecessary to the ligaments, (which, in the earlier stages, were not involved in the inflammation,) but was positively *physiologically wrong*. As the eye needs the healthy stimulus of light, so does the ligament need the stimulus of *motion*. If, then, we can give motion to the ligaments of a joint, while at the same time we prevent muscular contraction, so as to remove pressure from the synovial membrane, we shall accomplish our object, and at the same time give the patient the benefit of out-door exercise, which is so essential in this disease.

He has tried to make an instrument by which the muscles can be overcome, while at the same time a certain amount of motion is given to the limb, and practically it answers every purpose. In the few cases in which he had used it, it has answered more than his expectations, the patients begging to have it reapplied whenever it has had to be removed, for repairs or any other purpose.

The instrument shown was constructed under his direction, by Mr. FORD, of No. 85 Fulton Street, a most ingenious mechanic, and



one of the few surgical instrument makers who is willing and able to practically construct what you may originate or devise. The instrument consists of a steel bar, one and a half inches wide, (see cut,) extending from above the ilium to the external malleolus, slightly curved inward at its upper extremity—at its upper extremity there is a ball and socket joint, (concealed at *e*, visible at *f*,) resembling the hip-joint, and a pulley over which plays a catgut, which is fastened at either end to a piece of firm and strong india-rubber tubing, (*d*,) which passes around the groin, and makes the means of counter-extension; adhesive plaster spread upon firm inelastic

cloth, about two or three inches wide, extends from the trochanter major to the external malleolus, and is closely secured to the limb, by plaster and a roller, for the purpose of extension. This plaster is sewed fast at its lower extremity to a piece of webbing or belt, which plays over a roller in the lower extremity of the steel shaft, (*a*,) and is firmly secured by a buckle a few inches above its lower extremity. The steel shaft consists of two pieces, the one sliding into the other, and capable of being extended at pleasure, by a ratchet and cog-wheel, (*b*,) worked by a key, and retained at any position required, so that the extension and counter-extension are perfect, and entirely within the control of the surgeon. There is also a knee-cap (*c*) and strap intended to pass over the knee, and around the limb, to assist in sustaining the limb in position.

As the disease is one which requires many months for its treatment, it is necessary to keep up the extension, and increase the length of the instrument just in proportion to the growth of the child. As children generally grow from three to four inches in a year, or at the rate of about 1-16th of an inch a week, the cogs and ratchets are cut so

that they extend the instrument that distance at every single turn. The surgeon can therefore move it one cog every week, more or less, as his judgment may dictate. By the use of this instrument with leeches and iodine to the joint, combined with constitutional treatment and support, I have seen cases terminate before passing to the second stage, and recover without deformity, and with perfect motion.

When the disease has gone on to the *second stage*, and there is extensive effusion in the joint, which cannot be absorbed by the use of iodine or blisters, I should then puncture the joint, and allow the parts to resume their natural position, and then apply the instrument; by which means the necessity of dividing the tendons will be avoided in many instances, as the india rubber, by the *permanency* of its contraction, will overcome the muscular rigidity. At least it has done so in the few cases in which he has tried it.

If it did not, he would at once resort to myotomy, as nothing will so quickly relieve the agony of the patient as the division of the contracted muscles. Another advantage derived from puncturing the joint is in our diagnosis: when the joint is distended, we can get no crepitus, and cannot tell whether the cartilages are destroyed, and the bone is bare or not; but as soon as punctured we can ascertain the fact with positive certainty. And if the disease has so far progressed that you get *positive bony crepitus*, in other words, you have dead bone within the ligament, he is positively convinced from experience that the only proper treatment is immediate *exsection* of the dead bone. All delay, after you get *bony crepitus*, is but to the detriment of the patient; for if you wait too long there is danger that the acetabulum will be perforated, and pus escape into the pelvis. The sooner exsection is performed the better, and the advantage we gain in diagnosis, by puncturing the joint, more than compensates for the risk of the operation. In fact, done with proper care, there is not much risk. Dr. Bauer, of Brooklyn, has punctured the hip-joint now more than fifty times, and as yet without a single accident.

The operation of exsection is attended with no especial danger, and almost no hæmorrhage; it is a trifling operation compared with exsection of the knee or elbow. The results of the operation have been very remarkable indeed, when we consider the circumstances under which they have been performed. All the fatal cases that he had been able to trace had been performed too late; the acetabulum perforated, fragments of bone left behind; and in one instance no extension was used, and the sharp end of the femur perforated a blood-vessel, causing death by secondary hæmorrhage. In cases where the operation has been

performed at the proper time, and the proper treatment pursued afterwards, the success has been very remarkable; in many cases the patient recovering with considerable motion of the limb. The patient on whom he performed this operation, the first ever performed in this country, now some seven years since, he saw not long since *jumping a rope* as lively and strong as any child. She has only about an inch or an inch and a quarter of shortening, and has every motion of the joint perfect and complete.

DR. O'REILLY remarked that he agreed entirely with Dr. Sayre in condemning the use of issues in this disease, and had endeavored to point out the mischief resulting from their application, in a paper published in the *Medical Gazette*. He would also state, that he was in the habit of treating this disease successfully, in many cases, without deformity. He depended mainly upon the plan of treatment laid down by Dr. O'Burns, of Dublin, in 1843—namely, the use of mercury. Dr. O'Burns also recommends that the patient should be kept in a quiet position from four to six months, but does not advise anything in the shape of a splint. When the disease has advanced to the second stage, Dr. O'Reilly combines with the mercurial some *tonic* remedy, such as the compound tincture of bark, together with cod-liver oil, so as to remove the scrofulous taint, and build up the system. Under this treatment, he thought that most of the cases improved, while some recovered with almost no appreciable lameness. In one case, that of a little girl, put under this treatment, the recovery was complete; she is now a fine, stout, healthy girl, and has scarcely any deformity whatever.

DR. RAPHAEL thought that too little importance had been attached to the use of the bichloride of mercury in this disease. He considered it as one of the most valuable remedies in the whole *Materia Medica*, not only in this disease, but in many others in which it was formerly used, where it now seems to have been abandoned. Secondary syphilis is one of these; he considered it as a most valuable remedy in this affection. With regard to morbus coxarius, he would say that he himself had had the disease, and was treated with the bichloride of mercury, which perhaps might account for his strong partiality for this remedy. He knew very little about the history of his case, except what he had learned from his parents; and their statements led him to believe that the disease advanced to the second stage, as he was confined for some time. With regard to the present condition of the joint, he thought that he had a subluxation, resulting from partial absorption of the acetabulum, so that the head of the

bone rests upon its upper edge. When he moved the affected limb, he could feel the head of the bone slip out of the cavity. He is unable to cross the leg completely, but has anterior and posterior motion perfectly. There is about one-half inch shortening, which he has remedied by placing an inside sole in the boot of that side. To the local treatment in his own case he did not attach much importance; he considered that the beneficial results were almost solely attributable to the constitutional treatment employed; he could not, therefore, viewing not only his own case, but many others, avoid being impressed with the necessity of using constitutional remedies, and more particularly the bichloride of mercury. Dr. Raphael then requested Drs. Sayre and Carnochan to examine his case, to see if the diagnosis was correct.

DR. GARDNER then remarked that he was prepared to place great faith in the apparatus of Dr. Sayre, from what he had seen of treatment of diseases of the spine by the instrument of Dr. Davis, which is so constructed that, while it permits a certain amount of motion, it prevents the two bodies of the vertebræ from pressing against one another; thus permitting the patient to take exercise. He had also used the bichloride of mercury in this disease, and had more faith in it than most other preparations.

DR. SAYRE, who meanwhile had examined the case of Dr. Raphael, stated that in his opinion there was no subluxation, or destruction of the joint. The half inch of shortening he thought resulted from a lack of nutrition in the affected limb, during the active stage of the disease, while the other went on increasing in size; a circumstance which he had noticed in other cases. There is some grating motion in Dr. R's case, and it is quite probable that the cavity of the acetabulum is partially filled with plastic effusion, preventing the head of the bone from fitting the cavity, and as it rises over these points, gives him the sensation of subluxation.

DR. SELDEN stated that he had used the bichloride of mercury in the hospitals on Blackwell's and Ward's Islands, and had seen no great benefit result from its use. He gave the preference to iodide of potassium, even where the patient has had syphilis in early life.

DR. O'REILLY did not consider this any argument against its use in morbus coxarius.

DR. CARNOCHAN remarked that, in a disease like morbus coxarius, which naturally runs through a period of time ranging from six months to two or three years, you can scarcely expect to bring the treatment of the disease to a unit. Morbus coxarius is in fact a se-

ries of symptoms, and to say that issues or any other form of treatment is not applicable to the disease, *may or may not* be true. It may depend upon the stage of the disease in which this particular treatment may have been tried, whether it failed or succeeded. Morbus coxarius begins as an acute disease, as a phlegmasia, and is to be treated as such. It is, however, associated with a taint which makes a difference between it and ordinary inflammation. There must be, then, a treatment for this peculiar phase of the disease. The disease at this stage, if left to itself, may end in resolution, or it may go on to the formation of pus. Here, then, we cannot say that *one particular* form of treatment is *always* applicable; and so it is with the third stage. So, when we speak of the treatment, we must also speak of the *particular condition* to which this treatment is applied. Hence I think that a great many mistakes have been made with regard to the treatment of morbus coxarius, and hence the confusion with regard to the essays which have been written upon it. The two great principles at issue with regard to treatment of morbus coxarius are: one, to secure rest by mechanical means; the other, to allow the patient to follow the laws of instinct. I think in such cases the more favorable plan is to allow the patient to follow his own instinct, without the use of any apparatus whatever. In some twenty cases where the patients were allowed to follow their own instincts so far as motion was concerned, the result was favorable; they all got well. The plan of Dr. March, of Albany, is to draw the head of the bone from the acetabulum, and then confine the patient to bed. I know of two cases treated in this way, and in both the treatment failed to bring the disease to a successful issue. The discussion of this subject, so far, has been too *general*. One gentleman tells us that the application of issues is wrong, while Dr. Sayre says that the muscles must be divided. What we want is the *phase* of the disease to which these different kinds of treatment are applicable. So far as the nature of this affection is concerned, I have been in the habit of looking upon it as a constitutional disease. It is a strumous affection; I would almost regard it in the same light as strumous ophthalmia. I have consequently, in the treatment, relied very much upon constitutional measures. In the first stage of the disease, as much quietness of the parts as possible should be enforced; as a general rule, the patient will, if left to himself, assume instinctively that position which will give rest to the joint. Dr. Physick was in the habit of applying an apparatus for the purpose of keeping the joint at rest. At the present day, we have the apparatus of Dr. March, which is recommended by some;

then we have Dr. Sayre recommending puncture of the joint. These methods are but matters of experiment as yet. So far as the discussion has gone, we have no precise data. I might mention, as still leading to further discussion, the usual plan of treatment which I have adopted. In the first stage of the disease, I now use mechanical means of a gentle character, such as splints of *pasteboard*, for the purpose of maintaining the joint at rest. The joint is kept at rest in this manner for three or four months; in the mean while I deplete, or rather *revulse*, by acting on the intestines with doses of rhubarb, soda, and ipecac; at the same time I give the child such a diet as can be taken and *digested*, but do not attempt to *force* upon it any form of nutritive material. I order such articles in the way of food as eggs, beef-tea, soup, etc., in just such quantities as the *child will partake of them*; and if this stage ends in resolution, there is an end to the case. I have been fortunate enough to have this occurrence take place in many cases.

Sometimes, however, no treatment appears to be of any avail; the case then progresses to the suppurative stage. *Now* is the time for counter-irritation; the disease is now chronic. The irritable pulse of the inflammatory stage is not present; you want then some counter-irritation applied near the part, not sufficient to increase the *general* irritation; not to make a point of irritation from which there will be communicated a general irritation to the whole system, but just enough to act as a *flux* from the diseased part. There is no doubt that the old doctrine, "*ubi irritatio ibi fluxus*," is true. I think that all experience will prove that *that* is correct. I usually effect the counter-irritation by means of the "actual cautery," applying it midway between the tuberosity of the ischium and the trochanter major. In the first stage we deplete, to revulse upon the joint; but in the second stage, where the disease has become passive, where suppuration is about to take place, or where it *has* taken place, counter-irritation is to be resorted to; it must not, however, be carried too far; you cannot afford to draw away so much as to prostrate the general vitality, but just enough to produce a flux from the part. The second stage may be treated successfully, or it may not. If *not* treated successfully, what takes place? You have pus forming in the joint; you have the capsular ligament perforated by ulcerative absorption, and matter finding its way into the joint; you have abscesses forming round about the joint. Here is another phase of the disease; what are you to do now? Are you to continue the issues, or are you to leave them off? Are you to open the joint or not? These are knotty points in pri-

vate practice; for when the joint is opened and the matter let out, even in the most cautious manner, we often have irritative, and finally hectic fever, setting in; and we have such men as Abernethy laying down rules by which this irritative fever may be prevented, thus recognizing it as a consequence of the operation. Again the question comes up, Shall we open the joint freely, or give exit to the matter by subcutaneous puncture? These are points perhaps not yet *permanently* decided. Will a section of the muscles have much effect in this second stage? How many muscles do you have to divide? Not only the rectus, gracilis, sartorius, and other muscles in front, but also those which run from the tuberosity of the ischium to form the ham-string and the gluteal muscles. It may be very well to ask what is to be the influence of this traumatic lesion from cutting so many muscles? But let us go on to the third stage, where the disease is still, and attended with no effusion at all, and with very little pain, the patient being perhaps able to jump about, or even to run about the streets. Here we have the matter running from sinuses formed about the hip-joint. Here is another phase of the disease, and no one supposes that issues will be of any benefit at this period of the disease; so when we speak of morbus coxarius, we must take it up seriatim, not as a unit. Exsection has been spoken of. I can imagine very well that in certain periods of the third stage the head of the femur may be cut off with advantage; but are we always to be in a hurry to cut off the head of the femur? I should say it would be better to wait a little before we undertake such a serious operation, because the disease sometimes goes on much more favorably than we supposed it would, if we let it alone. The doctor has also spoken of puncture of the joint in the early stage, and subsequent application of the instrument. So far as puncture of the joint is concerned, I should hesitate very much to perform it in private practice, for fear that inflammation of the joint would follow.

DR. SAYRE said it was chiefly in the inflammatory stage that he expected benefit from this instrument, applied so as to get freedom from pressure on the infra-synovial membrane, while at the same time you give the child the benefit of exercise. Some of the treatment as laid down by Dr. Carnochan, varying according to the several stages, is very properly and very judiciously viewed, particularly as he now recommends the pasteboard splint in the early stages for some months, to keep the limb quiet, rather than to leave the patient to the *instincts* of nature; but he (Dr. S.) was not prepared to entirely agree with him in some points. He asks, if the disease goes

on to the second stage when there is effusion in the joint, whether it would be well to puncture. He should reply, if we fail entirely in producing absorption of the fluid by the use of remedies, then, rather than have the joint perforated by ulceration, he would make a valvular puncture, and withdraw the fluid, and would have little fear of constitutional symptoms. Of course, the operation is attended with some danger, as are all operations, no matter how slight, in children. In regard to division of the muscles, the necessity of dividing the gluteal has been referred to. This, he said, was not exactly according to his experience. In the second stage, the thigh is flexed upon the pelvis by the rectus femoris, and abducted, lifted outward by the tensor vaginae femoris. The gluteal muscles exercise almost no influence. On examining the gluteal region, you find the nates flattened, and the muscles loose and flabby. In some cases we find the tensor vaginae femoris so firm and hard, that it almost obliterates the ant. sup. spinous process of the ilium, the difference on the two sides being very marked. The pectineus and gracilis will be found very firmly drawn in the other direction. To restore the limb to its position, it is only necessary to divide *those muscles* which are *firmly* and *rigidly* contracted. The treatment by division of the muscles, in cases where the patient is suffering the most intense pain, where the disease has gone on to the suppurative stage, has been followed by the most perfect relief from all *pain*; the suppuration, of course, goes on as before, but *sleep* can be had without anodynes; the appetite is restored, and the general condition of the patient improved.

In the third stage of the disease, no one would attempt to get into the joint by puncture. Where the joint is destroyed, where naked bones come in contact, and pus is endeavoring to escape, rather than let it alone, he would make an incision *fairly* and *fully* into the joint; no valvular incision, but one by which the air can get in and *out* again; nothing need be feared from the introduction of air, for it is a *joint* no longer—it is no more entitled to the name of a joint than any other portion of dead bone, and he would therefore cut down to it, and remove it.

DR. CARNOCHAN remarked that he did not consider the bone as *dead*, but only in a *carious* condition. If the bone were dead, it would assume the character of a sequestrum, and be thrown off. Unfortunately the bone is still living, but carious. We know very well that caries of bone ends in resolution; we see this in the spine, where, in the course of time, the disease terminates by bony ankylosis. We have this same condition of things about the joint; the bone is in a carious condition. The question is, whether it is proper to cut away

the head of the bone, or to leave the case to the recuperative power of the system, influenced by therapeutic means, properly directed? Again, if the head of the femur were situated like the head of the humerus, the operation might be more practicable, but we cannot chisel out the bone as we wish without being liable to create suppurative inflammation of the pelvic structure. He would therefore be unwilling to adopt this practice, because we know the disease will get well with ankylosis; sometimes the surfaces become eburnated, forming a sort of a joint, and allowing motion even after the third stage.

DR. SAYRE.—If this dead bone is allowed to remain, there is danger that it will create disease in the acetabulum, and then the case is almost hopeless, and the operation would be, perhaps, followed by fatal results. The operation, to be of benefit, *must be performed* at the *proper time*. One more point—he thought the removal of the dead bone from the hip-joint is just as proper as the removal of the head of the humerus, and certainly more necessary. The acetabulum is a delicate structure, thin in its inner and pelvic wall, and may become perforated—a piece of dead bone may remain in the glenoid cavity for years without producing any serious result; not so, however, with the acetabulum.

DR. CARNOCHAN asked Dr. Sayre what he would do in the case of a child of about 12 years of age, who has passed through the different stages of the disease, and is now in the following condition: The tissues about the part are somewhat thickened; there are two sinuses leading to the diseased joint, which throw out, not exactly pus, but sero-purulent matter in no very great quantity. The child is able to be up, walks about, sleeps well, the limb is slightly bent inward, the head of the bone seems to be relieved in a certain position, and the child instinctively assumes it. There is no ankylosis. This is a case which might get well without treatment other than therapeutical.

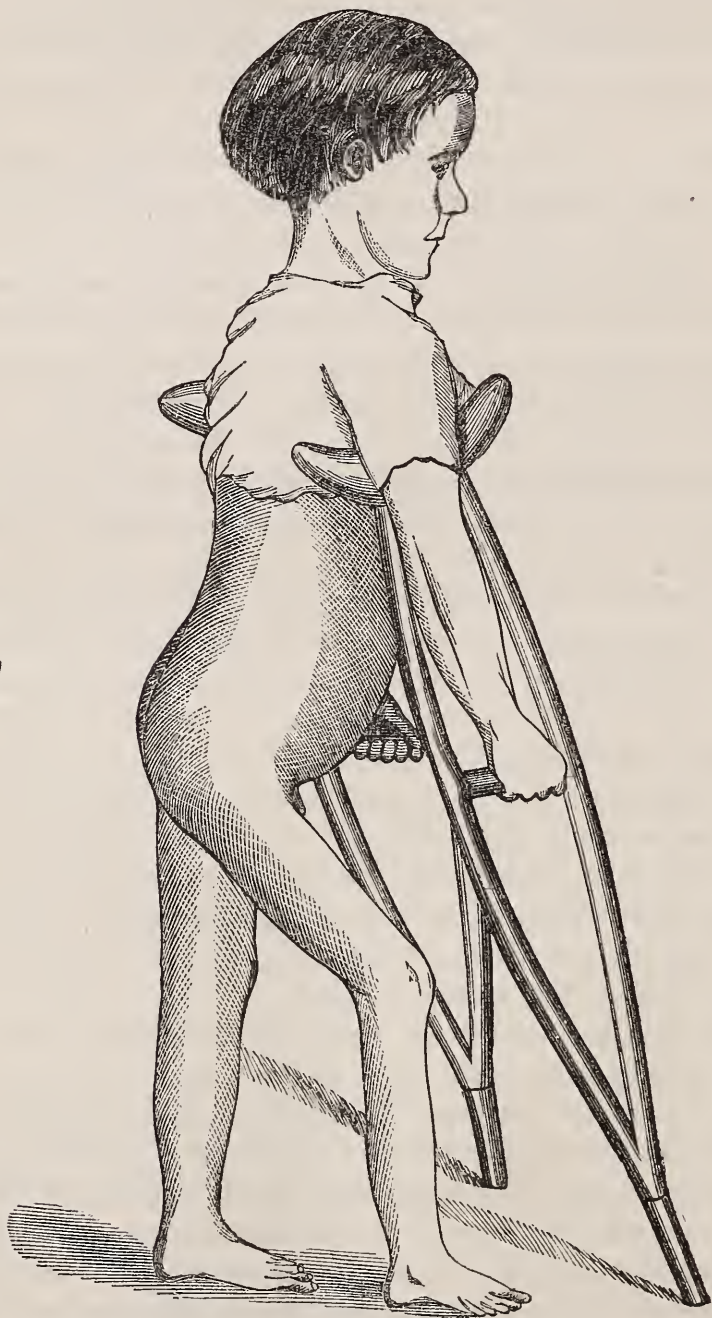
DR. SAYRE.—Did you find crepitus?

DR. CARNOCHAN.—Crepitus could not be detected, but the probe leads down to dead bone.

DR. SAYRE.—If dead bone could be found, and I could not remove it by dilating the sinus with compressed sponge, I would cut down and remove it, just as I would anywhere else. In many of these cases, there is an inflammation of the periosteum of the femur, and no implication of the joint; the periostitis and necrosis, involving only the upper portion of the femur, the joint, proper, having entirely recovered its healthy action; in these cases, I presume Dr. C. would make a

objection to exsection of the dead portions. He could see no reason why the same rule should not apply, where the *dead portion is embraced within the capsular ligament* ; but, on the contrary, every reason why it should be *more speedily* removed, than where it only involved the shaft of the bone; for, within the capsule, it endangered the perforation of the acetabulum, and consequently the pelvic viscera.

Fig. 1.



Photographs taken by Mr. Gurney, of a case of morbus coxarius,

with and without the instrument applied, were then shown to the College. The accompanying cuts were reduced from these photographs. Fig. 1 shows the malformation, and the position the patient naturally assumes in the first and second stages of the disease. Fig. 2 is the

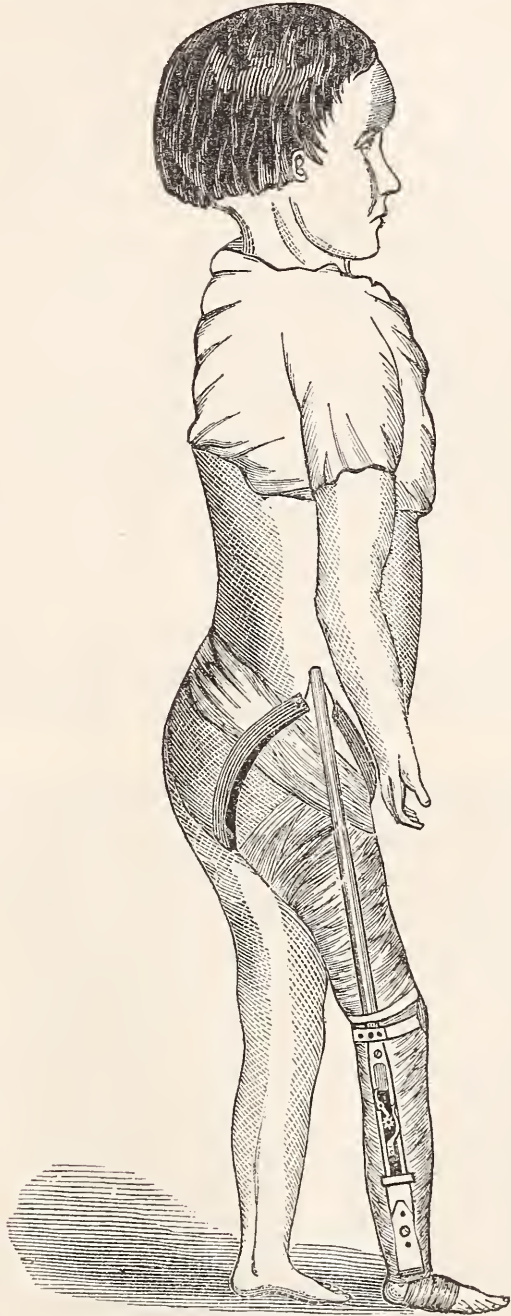


Fig. 2.

same case with the instrument applied; shows the method of its application and the improved position of the patient, as the result of the use of the instrument. The two photographs were taken within twenty minutes of each other.

EDITORIAL AND MISCELLANEOUS.

—The paper which we publish this month upon *Osteo-Plastic Operations*, from the pen of one of the most distinguished surgeons of the age, Prof. Langenbeck, of Berlin, is upon a subject of the very highest importance. The recent researches of M. Ollier upon “The Artificial Production of Bone, by means of the transplantation of the periosteum, and the regeneration of bone after exsection, and complete removal,” which have been doubly crowned by the Academy of Sciences and the Academy of Medicine, have opened a new avenue for surgical exploits. The report of the several successful operations given in this paper is the legitimate result of the experimental researches made by M. Ollier. The application to man of the physiological data derived from experiments upon animals, is a brilliant suggestion in the direction of conservative surgery, and will tend to lead surgeons still further towards the preservation of form, in operations requiring extensive mutilation, such as was formerly the case in operations similar to those related in the paper given in the present number of the MONTHLY.

In this connection, we may state that M. Ollier has added another experiment in relation to the transplantation of bone, to those already given in his Essay, which appeared in Brown-Séquard’s *Journal de la Physiologie*.

M. Sedillot, of Strasbourg, in a note addressed to the Academy of Sciences in December last, denied that there was any well-authenticated case of complete osseous regeneration under the periosteum, sufficiently produced to replace the ancient bone and fulfill its functions.

In reply to this, M. Ollier cited, in a subsequent sitting, several cases drawn from the practice of experienced surgeons, to sustain his views, showing that the movements were preserved, and the various functions of the original bone maintained. At a still more recent sitting, M. Ollier contributed a note upon the transplantation of bone taken from animals dead a certain length of time, which goes to show still more forcibly the remarkable aptitude which these tissues have to unite. “Not only has he transplanted entire bones immediately from the midst of the tissues of a living animal, but he has succeeded in reviving them upon another animal of the same species, although the animal from which they were taken had been dead some little time.” “The vitality of these tissues,” says M. Ollier in this note, “is not extinguished with the circulation and respiration; transplanted into a

situation analogous to that they formerly occupied, they continue to live and to grow to a certain degree, according to the laws of their normal development."

"Portions of periosteum taken from rabbits which have died either from hæmorrhage, or from a section of the medulla oblongata, were engrafted, and gave osseous productions ten, thirty, sixty and eighty minutes after the heart had ceased to beat. Entire bones, (humerus, tibia, radius, &c.,) transplanted ten, thirty and sixty minutes after death, united perfectly. In these different experiments the union was real; since the transplanted bones presented, at the end of five months, the following characteristics: They were perfectly adherent to the tissues in which they had been placed; they were covered with a subperiosteal osseous layer of new formation; they were permeable to injections thrown in by the arteries."

M. Forget, in reviewing the subject in the *Union Médicale*, for February 21, thinks that the formula laid down by M. Flourens, to the effect that, "preserving the periosteum upon removing a bone, the preserved periosteum will *produce bone*," should be so modified as to read "will produce bony tissue." This is quite sufficient for all surgical purposes, and until experiment proves demonstrably the aphorism of M. Flourens to be correct, we shall be content to accept the modification, not regarding it as in any way interfering with the great practical results to be drawn from it, for the use of the bold surgeon.

— Dr. Wm. F. Holcomb, to whose kindness we are indebted for the paper by Prof. Langenbeck, informs us that the translation was revised by Prof. Langenbeck himself.

From the letter which accompanied the paper we select a few paragraphs, as they afford important information relative to the various schools of Europe, judged by one who has at two separate visits passed several years among them.

Dr. Holcomb writes us, "that if a young man calculates to reap much advantage by coming to Europe and staying here and there, 'on the wing,' and returning home in a year or eighteen months, as so many do, he greatly misapplies his time and money. An American doctor—just '*fledged*'—had better spend a year in the hospitals of any of our large cities (if he has not done so) before coming to Europe; and unless he can speak or understand perfectly French and German, or can stay two or three years in Europe, he had better not waste his time or money by going to Paris or Germany. I have found Dublin to be the best place for American doctors who come abroad to stay a year

or so, though its advantages are seized by a few only. The Dublin Medical and Surgical Professors are the best educated, accomplished, noble gentlemen I have yet seen anywhere, and the advantages for hospital study in Dublin are almost unlimited.

“ I think the advantages in Germany for the study of Pathology, Physiology, and Microscopical Anatomy are far superior to those in France, but a man must make up his mind to go *slowly*—as the German always does—but, nevertheless, most *surely*, towards a thorough knowledge of what he studies. Berlin, Vienna, Würzburg, Erlangen, each have their advantages. Graefe, of Berlin; Donders, of Utrecht; Arlt, of Vienna, are the great teachers of ocular diseases. Virchow is the great pathologist of the day, though he is still a young man—under 40. He certainly has very great power in grasping facts, and distinguishing quickly political, religious, or physiological truths or fallacies. He is as great a Republican as he is a Physiologist. He has promised me a photograph of the Pathological Institute here, and with it I will send you a description of the same, and the plan of study here. It is most perfect, and one *must* learn if he wishes to.”

Employment of Blood as Food.—We certainly live in an age of projects and suggestions, and we must be very blind to what is going on in transatlantic countries, if we imagine that cisatlantic ingenuity is only employed in producing innovations upon the customs and habits of the world. In all honesty, this is a fast age. Everything is made *to pay*, in some way or other. Inaction is considered the great crime, and less than six per cent. a poor return for any venture. Hear the French journalist, Guérolt, in the *Opinion Nationale*, as he talks of the new pamphlet of Dr. Steinroth—from the sober land of Germany—entitled *De la chair coulante et de son exploitation rationnelle*.

“ The *chair coulante* (liquid flesh) is the blood. The German economist pretends that, despite our advanced civilization, the agricultural arts are yet in their infancy, and that real economical zootechny is yet to be created. We have dairies which abundantly furnish all European countries with milk; but meat is deficient, and its price becomes higher and higher every day. There are, moreover, in Europe three or four times as many beeves as cows. Let us, then, establish *laiteries de chair*, (dairies of blood;) let us obtain from animals their blood as we do their milk. Blood contains no gelatin, and but little fatty matter—still it is composed of all the other substances which make flesh *par excellence* the nutrient food. It is true, one cannot bleed beeves as often as we can milk cows, yet bleeding can be repeated weekly, and for several years, on the same animal without injuring its

health, and without removing the flesh, which we shall get afterwards. Thus we may obtain from a beef, a sheep, or a hog, three or four times as much alimentary material as we obtain now by slaughtering them. The blood could be eaten crude or cooked, pure or mixed with milk, or introduced into vegetable food, especially bread and pastries."

"The proceeding is not new. In Sweden, blood is employed in the preparation of a species of biscuit; in Ireland, (*sic!*) the poor frequently bleed beeves and cows to procure that substantial food which is otherwise denied them. In Africa the custom of using blood is quite extensive, and blood is the principal nourishment of a large number of people; like the Adjeba of the basin of Sobat, who only rear large herds for the purpose of subjecting them to repeated bleedings."

Guérolt adds: "We doubt, notwithstanding the arguments employed, whether this system of economical zoology will ever be adopted in France. The dairies of *chair coulantes* may be very highly appreciated among the negroes of Soudan, but in Europe there is an instinctive repugnance to the use of blood."

The editor of *L'Union Médicale* says this repugnance is not so great as might be supposed. *Boudin* (blood-pudding)—a very popular food—is almost exclusively made of hog's blood. In all the central provinces of France, the blood of almost all the fowls killed is carefully preserved, and, by means of a very simple mode of preparation, is fitted for the table. We understand how one could advantageously introduce, as food, blood of animals slaughtered by the butcher, which is now employed for other purposes, but we object to the proposition of Steinroth; it is a barbarous and cruel practice.

Who will make the effort to introduce blood on this side of the great ocean; who will establish a *blood dairy*? Shall the Rhine take the lead in this matter? Oh that Soyer were now alive! How many dainty dishes would he *compose*, the central and attractive feature in each of which should be *chair coulant*! We shall keep our eyes open to report the progress of the blood movement, although we fear some friends of the animal kingdom may strongly oppose the idea of keeping herds of beeves simply for the purpose of performing weekly venesection upon them.

L. H. S.

—THE ORGANOSCOPE is the name which has been given to a new instrument which promises to be of great service in medicine and surgery. It has been highly spoken of by M. Velpeau and other eminent Parisian authorities. Its object is to convey into the natural or pathological cavities of the human body a light, which, without burning the patient, shall facilitate exploration. For this purpose, a

hollow glass tube is bent in the form of the letter Y, the two branches of which receive at their bulbous extremities the poles of a voltaic pile. The stem of the Y contains exhausted capillary tubes, which become luminous when the electric current traverses them. This stem is introduced into the cavity which is to be illuminated.

At the meeting of the Académie des Sciences, on the 22d of January, M. Fonssagrives presented a paper, of which the following is a translation:

I have long entertained the conviction that the electric light could with advantage be used in certain diagnostic examinations, and in certain surgical manipulations; for the ordinary methods of throwing light on the parts are either inadequate in intensity and in luminous radiation, or defective, in consequence of the color of their light. Besides, they are troublesome in other ways, for it is impossible to use them without hiding from view the surgeon's field of action, and it is necessary, from the great heat they give out, to hold them at a considerable distance from the surface requiring to be illuminated. Our problem, therefore, reduces itself to these three conditions: First, the luminous body required must produce little or no calorific action. Secondly, it must be capable of being condensed in tubes of minute volume and slightly varying form. Finally, the light itself must be extremely white, so as not to change the color of the organic tissues on which its rays are thrown. Thanks to the co-operation of Messieurs Du Moncel and Ruhmkorff, the problem has been satisfactorily solved. Having observed that the vacuum tubes of Geissler do not become heated under the influence of the electric light when traversed thereby, and knowing, moreover, that this light itself is more brilliant in proportion as the tubes connecting the terminal bulbs of the apparatus have a more minute diameter, M. Du Moncel thought that by taking an apparatus of this kind, in which a long tube, almost capillary, was bent upon itself and twisted like electro-magnetic multipliers, he could obtain not only a kind of luminous cylinder capable of being introduced into very narrow cavities, but also a sort of electric lantern, in certain parts of which light might be concentrated, without danger of producing heat or trouble. The first two conditions of the problem were thus satisfied. As for the color of the light in these tubes, it is well known to depend altogether upon the nature of the gas on which the vacuum was produced—being white, with certain mixed gases, such as carbureted hydrogen, carbonic acid, muriatic acid, etc. The last condition of the problem, therefore, is satisfied, if the tubes be prepared with the right kind of gas. M. Ruhmkorff, to whom the making of the tubes was intrusted, has attained a very satisfactory result; and experience has demonstrated the fact, that the light supplied by this apparatus is more than sufficient for the requirements of medicine and surgery.

Without wishing at present to trace out the precise applications to which this new method of illuminating organic surfaces is applicable, we may, however, indicate the following: First, it is a means of diag-

nostic exploration, and of examining the accessible cavities of the body, that their normal or pathological state may be ascertained. Secondly, it is a method of illuminating the parts during surgical operations.

The utility of this new instrument is obvious in operations in which the most serious contingent difficulties are complicated and increased by the impossibility of properly illuminating the surfaces on which the instruments are used. I may mention amongst those likely to profit in an especial manner from this new application—1, Staphylorraphy; 2, The operation for vesico-vaginal fistula, according to the American method; 3, The extirpation of uterine or naso-pharyngeal polypi; 4, The excision of the tonsils.

Moreover, certain operations in dental surgery appear likely to borrow from this mode of illumination conditions for their better and more easy performance. I may also ask whether these luminous tubes would not light up in a more complete and easy manner the field of the retina.—*Revue de Thérapeutique*, 15 February, pp. 103–4.

— Since our last issue, the Medical Schools in this city have all closed their winter sessions. The New York Medical College held its Eighth Annual Commencement on Thursday evening, March 1. The regular degree of Doctor in Medicine was conferred on *twenty* candidates in course, and the honorary degree on Samuel T. Parker and Campbell Morfitt, of New York; Thomas Garrett, of Pennsylvania; and Rev. A. G. Shears, of Conn. Samuel J. Tilden, Esq., delivered the Valedictory Address.

The *New York University, Medical Department*, held its Commencement on Wednesday evening, March 7. There were *one hundred and thirty-eight* graduates. Prof. Valentine Mott gave the Valedictory Address.

At the Commencement of the College of Physicians and Surgeons, which was held the evening of March 8, there were *fifty-five* graduates. Dr. Seth Lyman Chase, one of the graduates, delivered the Valedictory to the Class, and Prof. T. W. Markoe delivered the Address to the Alumni.

— *University of Maryland*.—Fifty young gentlemen received the Doctor's Diploma at the late Annual Commencement of this venerable school. The Chair of Anatomy and Physiology, vacated by the resignation of Prof. Joseph Roby, has been offered to Dr. William A. Hammond, Surgeon U. S. Army, who has accepted the offer, and will enter upon his duties with the commencement of the next session. Dr. Hammond is well known to our readers, as the author of the Essay on "*The Nutritive Value and Physiological Effects of Albumen, Starch and Gum, when singly and exclusively used as Food*," to which the prize was awarded at the Tenth Annual Meeting of the American

Medical Association. We wish him every success in a field of labor so congenial to his tastes.

—It is with sincere regret that we announce the death of one of our friends, Prof. Charles Frick, of Baltimore, whose name is familiar to the profession throughout the country as an earnest student, and who, among his personal acquaintances, was universally esteemed as a true physician and a noble-hearted man. He died in the active duties of his profession, from diphtheria, claiming for himself, as a relief from suffering, the operation of tracheotomy, which he had himself performed upon a patient, at the Infirmary, but a few days before. The following just tribute to his memory we take from a Baltimore paper:

“Our readers, and the whole community, will share with us the poignant regret with which we are compelled to announce the unexpected and untimely death of Dr. Charles Frick, Professor of Materia Medica and Therapeutics in the University of Maryland, and one of our most promising and useful citizens. A malignant disease, contracted but a few days since, in the discharge of his professional duties at the Infirmary, was brought yesterday to a painful and melancholy close, before the tidings of his illness had reached more than a few of the large number by whom he was so justly admired and loved.

“Dr. Frick was a native of Baltimore, a son of the late Hon. William Frick, and at the time of his death had only reached his thirty-seventh year. Enthusiastically devoted to the profession of his choice, he had dedicated to its energetic pursuit all the faculties of an acute and admirable intellect, and had already attained a position in its ranks to which his election to the Chair he occupied was no more than a befitting testimonial. It is for those more familiar with the course of his varied scientific inquiries to render to his professional reputation the discriminating justice which, in so brief a notice as this, it would be wholly inappropriate to attempt. To the public at large he was known as a diligent and faithful student of books and of nature—an independent and original thinker, of large and careful observation and patient and laborious analysis. His contributions to medical literature were frequent and highly esteemed, and through them he was known most favorably to the Faculty, in Europe as well as his own country. In the practical department of his profession, he was eminently popular and successful, not less from the ability and conscientious care with which he fulfilled its laborious duties, than from his cordial and attractive manners and sympathizing nature. In the relations of private life no man ever gathered round him more unqualified affection and respect. He was full of gentleness and kindness, of modesty and unobtrusive charity. As was his work, so be his reward!”

Specialties in Medicine and the Paris Faculty.—Early in last year the Minister of Public Instruction addressed the following question to the Paris Faculty of Medicine: "Are the various branches of Medical Science sufficiently represented in the teaching of the Faculty?" This query was evidently but a polite mode employed by the Minister of acquainting the Faculty with his opinion of the insufficiency of its instruction, as also with the liberality of his disposition to provide the means for rendering it complete. He, however, had the courtesy to leave to the Faculty the merit and honor of taking the initiative in the matter. At the end of three months the Faculty replied to his generous provocation, with the following resolution, carried by a large majority: "That the creation of chairs for specialties would be a very disastrous measure, which would alter the proper character of education, and would prove of no utility for the practical instruction of the student." M. Latour, in the *Union Médicale*, observes: "We hope that the liberal intentions of the Minister will not be discouraged by the resistance of the Faculty. History teaches us with what difficulty corporations accept any innovation which disturbs their quietude. It is not a century since the old Paris Faculty would have felt itself dishonored in seeing any of its chairs bestowed upon the surgeons. They now occupy nearly one-half of these. The spirit of progress has dissipated all these contemptible vanities. Let us still trust to it." M. Diday, of Lyons, has published an eloquent protest against the decision of the Paris Faculty, maintaining that it is the duty of the Faculty to furnish a complete course of instruction to its students, which at the present time it does not do. He maintains that specialties have been the source and cause of the greatest scientific advances, and that the very men who are so jealous of allowing them to be taught are only too happy to call in their aid in the difficulties of practice. Even as it is now, the official teaching is much concerned with specialties. Surgery, taken upon its whole, is but a specialty; Operative Surgery is but a specialty of a specialty; and obstetrics, hygiene, legal medicine, pharmacology, materia medica, &c., are one and all but specialties. M. Diday insists, at great length, upon the absolute necessity of founding two new specialties in the Paris Faculty, that of Psychiâtrie and of Syphiligraphie.—*Medical Times and Gazette*.

Suicide in Sweden.—Professor Berg, of Stockholm, has recently published a report on the suicides which occurred in Sweden during the years 1843–51. They amounted to 1,308—*i. e.*, a yearly average of 145·3. A steady increase in their number has taken place since the year 1770. From 1771 to 1775 one suicide occurred amidst 65,320 inhabitants. During the first five years of the present century the proportion rose to 1 in 30,010; from 1816 to 1820, to 1 in 20,690; and from 1816 to 1850, to 1 in 14,830. In the towns the proportion is nearly three times as great as in the country districts. In Stockholm, between 1836–40, there was 1 suicide in every 5,560 inhabitants; and from 1846 to 1850, 1 in 5,390. Of 6,348 suicides occurring since 1816, 5,061 (or 79·72 per cent.) belonged to the male,

and 1,287 (20·28 per cent.) to the female sex. It was seldome committed by unmarried females, and most frequently by married men. The majority of suicides were committed between the ages of 25 and 50—viz, almost three times as many as before 25, and one-half more than after 50. By far the greatest number occurred in May, viz., more than 14 per cent.; December, November, and February furnishing the fewest numbers: 21·6 occurred in winter, 32·9 in spring, 25·9 in summer, and 20·3 in autumn. As to the form of death, hanging was resorted to in 38 per cent., and to this succeeded poisoning in 24·8 per cent., drowning in 21·4 per cent., stabbing in 8·8 per cent., and shooting in 7 per cent. In the years 1826–31, the kinds of suicide did not observe this proportion; for of 466 suicides, 126 took place by hanging, 123 by drowning, 103 by poisoning, 66 by shooting, and 48 by stabbing. Arsenic is the usual poison resorted to. Poisoning and drowning are more frequently resorted to by women than men; while shooting, hanging, and stabbing occur oftenest among men. In the various districts of the kingdom, the kinds of suicide vary much; some of these, as poisoning or shooting, being in certain parts quite unknown. Drunkenness has been juridically proved as the cause of suicide in more than 20 per cent. of the cases.—*London Medical Circular*.

— At the meeting of the Academy of Sciences in Paris, on December 26th, 1859, M. Leverrier made the following interesting communication: Dr. Lescarbault, a medical man in busy practice at Orgères, in the department of the Eure-et-Loire, is also a zealous astronomer, and a man who supplies by his ingenuity the deficiency of the means which he possesses for prosecuting his favorite science. In March last, M. Lescarbault observed the passage over the sun's disc of a planet within the orbit of Mercury, and he communicated the fact to M. Leverrier, who had noticed certain perturbations in the motion of Mercury, that, in his opinion, could only be explained by the presence of another planet. This was in September last; and thereupon M. Leverrier visited him, together with M. Vallée, and had been enabled to confirm the title of M. Lescarbault to the discovery. The correctness of the results obtained by him was the more remarkable on account of the paucity of his instruments. On arriving at Orgères, M. Leverrier found a regular observatory, with instruments chiefly contrived by the doctor himself, whose finances were limited. Not having a chronometer, he had made himself a pendulum, striking seconds, by means of an ivory ball and a bit of string. Notwithstanding the clumsiness of his apparatus, the calculations of M. Lescarbault varied less from those of M. Leverrier than those of the most eminent astronomers sometimes do from each other. For want of paper, Dr. Lescarbault had generally written down his observations with charcoal on a deal-board; which, with the doctor's calculations written on it, was presented to the Academy by M. Leverrier.

— Subnitrate of bismuth is, M. Velpeau says, of great service in erythematous affections of the skin; there does not exist a better astringent or resolvent: it is also precious in affections of the conjunctiva, because it does not irritate.

Treatment of Small-Pox by Hydrochloric Acid.—I beg to call the attention of the profession to the great value of hydrochloric acid in both the external and internal treatment of small-pox. It allays the pricking pain so distressing in some cases, reduces the tumefaction, the vesicle matures earlier, and desquamation takes place sooner, leaving the skin smoother and purer than by any other plan which I have tried. Internally, one drachm of the commercial acid to twelve ounces of water; dose, a tea-spoonful in a glass of water; to be sipped often. Externally, I use it to the face, hands, and feet—the parts which suffer most from irritation; for the face, half a drachm to, say, ten ounces of water: apply with a hair pencil twice or thrice daily, using occasionally the mercurial liniment or cold cream. If the cuticle on the extremities be hard and horny, it may be used stronger. I shall not here enter into an account of its specific action, as I am preparing a paper on its use in various diseases, which, with your kind permission, I shall shortly publish in your valuable journal. The present epidemic of small-pox affords ample scope for its trial, and I am confident that it will be as serviceable in the hands of my professional brethren as in mine.—*Dr. Wm. McDonald, in Lancet.*

Pencils of Tannin in Affections of the Uterus.—This form of application, pointed out by Dr. Becquerel, seems likely to be of service in the treatment of lesions affecting the cavities of the neck and body of the uterus. In particular, in the fungous conditions of their mucous membranes, with consecutive hæmorrhages, the tannin pencils might be advantageously substituted for the intra-uterine injections, which are not always free from danger. Dr. Becquerel's formula is: R.—Tannin, 4 parts; gum tragacanth, 1 part; bread-crumbs, q. s. to give the proper consistence. These pencils are 5 millimetres in diameter, and 3 centimetres long. To use them, the neck of the uterus is exposed by means of the speculum; a pencil of tannin is introduced by means of the forceps into the os tincæ, and is then pushed into the uterine cavity, and secured there by means of a plug of lint soaked with concentrated solution of tannin. Once in position, the pencil softens and dissolves, and modifies the tissues with which it is in contact. At the end of twelve hours, the plug of lint is withdrawn by means of a thread attached to it. Every three or four days a new pencil is introduced in the same manner; and after a month of this treatment, the fungous state of the mucous membrane progressively disappears, and the hæmorrhages are arrested.—*Bull. Gén. de Thérap. and Edin. Med. Jour.*

— Dr. Pierce observes that he has seen stramonium ointment, as well as the whole list of preparations used for excoriated nipples, but no one has been so universally followed by good results as that made after the following: Tannic acid, gr. xx.; glycerine; alcohol, ää, ʒj. M.

— In 1838, England, with a population of 15,000,000, consumed 35,000,000 pounds of tea; in 1858, with a population of nearly 18,000,000, about 81,000,000.

— Our associate, *Prof. Austin Flint, Jr.*, has recently been appointed to the Chair of Physiology and Microscopic Anatomy in the New Orleans School of Medicine. The former incumbent of this Chair, Prof. Peniston, has been transferred to the Chair of Anatomy, Prof. Beard resigning it and assuming the duties of the Chair of the Principles of Surgery and Surgical Pathology, while Prof. Choppin takes a new Professorship, to be called the Chair of Clinical and Operative Surgery. Dr. Flint, previous to accepting this position, had resigned his Professorship in the New York Medical College.

To the Medical Students of the United States of America.

I will give a premium of \$250 for the Essay which shall be judged the best, by competent judges, on the Anatomy and Physiology of the Animal and Organic Nervous Systems.

The Essays to be sent to me on or before the first of March, 1861.

I will likewise give a second premium of \$250 for the best Essay on the same subject.

The Essays to be handed in on or before the first of March, 1862.

The medical students who shall be declared the successful competitors will be required to declare, on their *word* and *honor*, that the Essays are their own productions, and that they have not been assisted by any legally qualified medical man.

JOHN O'REILLY, M.D.

230 FOURTH STREET, WASHINGTON SQUARE, SOUTH, }
March 8th, 1860.

Books and Pamphlets Received.

A Medico-Legal Treatise on Malpractice and Medical Evidence, comprising the Elements of Medical Jurisprudence. By John J. Elwell, M.D., Member of the Cleveland Bar. New York: John S. Voorhies. 1860.

Lectures on the Diseases of Infancy and Childhood. By Charles West, M.D., &c. Third American, from the Fourth Revised and Enlarged London Edition. Philadelphia: Blanchard & Lea. 1860.

The Diseases of the Ear; their Nature, Diagnosis and Treatment. By Joseph Toynbee, F.R.S., &c., with 100 Engravings on Wood. Philadelphia: Blanchard & Lea. 1860.

Clinical Lectures on Certain Acute Diseases. By Robert Bentley Todd, M.D., F.R.S., &c. Philadelphia: Blanchard & Lea. 1860.

The Action and Sounds of the Heart; a Physiological Essay. By George Britton Halford, M.D., &c. London: John Churchill. 1860.

On the Circulation of the Blood in the Venous System during Life. By George Murray Humphrey, M.D., F.R.S., &c. Cambridge: Macmillan & Co. 1859.

On Excision of the Knee-Joint. By Oliver Pemberton, Surgeon, &c. London: T. Richards. 1859.

For explanation of apparently missing
pages see p. 482. Lectures I.-IV. originally
appeared in the *Buffalo Med. Jour.* were reprinted
and paged 321 et seq. and distributed to
paying subscribers as a supplement.

THE AMERICAN MEDICAL MONTHLY.

M A Y, 1860.

ESSAYS, MONOGRAPHS, AND CASES.

The Physiology of the Circulation. A Course of Lectures delivered at the College of Physicians and Surgeons, New York, in the Fall Term of 1859. By JOHN C. DALTON, JR., M.D., Professor of Physiology and Microscopic Anatomy.

LECTURE V.

(SEPTEMBER 27.)

The Arteries and Arterial Circulation—Elasticity of the Arteries—Action of Aortic Valves—Arterial Pulse—Mode of its Production—Its Retardation at a Distance from Heart—Experiments of M. Marey—Pressure of Blood in the Arteries—Experiment—Different Instruments for Measuring Pressure—Constant or Arterial Pressure—Oscillations from Action of Heart—From Movements of Respiration—Disturbance of Arterial Pressure from Various Causes—Struggling—Congestion—Ligature of Arteries—Hæmorrhage—Obstruction of Respiration—Experiment—Rapiditv of Pulse—Action of Woorara—Opening of Chest—Experiment.

We come now, gentlemen, to the consideration of the second great division of the circulatory apparatus, namely—the arteries. I shall not occupy your attention with any detailed description of the anatomical structure of these vessels. I will simply remind you that they constitute a system of ramifying vascular tubes, everywhere continuous with each other, and communicating freely with the heart at one extremity, and with the capillaries at the other. These simple anatomical relations are the most important of those which it is necessary to recollect in studying the peculiar phenomena of the arterial circulation.

The first and most essential physical property of the arterial tubes is their elasticity. This property, as you know, is due mostly to the structure of their middle coat, which, in all the larger and medium-sized arteries, contains an abundance of elastic fibres, running both longitudinally and transversely, and arranged in successive layers. But in the largest arteries, these fibres encroach upon the internal and external tunics, to such a degree, that the whole vessel seems composed essentially of elastic tissue.

The characters which I have just mentioned can be seen very distinctly in this aorta of the ox. You have here a tube with very thick walls, distensible and elastic in every direction. It is precisely like a large tube of india rubber. You can stretch it longitudinally, or dilate it transversely, by forcibly drawing apart its walls; and it always returns upon itself, and instantly resumes its former shape.

You can appreciate, therefore, the effect which must be produced in such a series of ramifying tubes by the force of the cardiac impulse and the reaction of their elastic walls upon the circulating blood.

In the first place, the contraction of the heart produces a sudden distention of the entire arterial system, by driving into it the blood from the left ventricle. The contraction of the heart, however, being instantaneous, is immediately followed by a relaxation, and the arteries, by virtue of their elasticity, then react upon the blood, and compress it with a force nearly equal to that by which they were themselves dilated. Now, what becomes of the blood subjected to this reaction? It would, as you know, regurgitate into the cavity of the ventricle, were it not for the existence of the aortic valves.

I will now call your attention, briefly, to the peculiar arrangement of the aortic valves, and their mode of operation.

These valves consist, you remember, of a set of festooned membranous curtains, fibrous in structure, and capable of great resistance. They stand as a barrier between the cavity of the aorta and that of the ventricle, and bear the pressure of the blood under the reaction of the arterial system. In this aorta of the ox, the valves have been left entire at its cardiac extremity. By filling the vessel with water, from above downward, the valves, you observe, are closed, and the aorta remains full. If we now insert the nozzle of a syringe into its upper extremity, and forcibly inject it in a backward direction, the artery is distended at each stroke of the piston, and then reacts upon the contained fluid, just as it would react upon the blood in the natural state of the circulation. Wherever an artery can be felt by the touch, you

easily perceive this alternate distention and reaction of the vessel. It is this distention of the arteries by the cardiac impulse, followed by their reaction, which is known as the phenomenon of the *arterial pulse*.

This arterial pulsation, which, as a fact, has been familiar to physiologists from time immemorial, was for a long period altogether misunderstood.

Singular as it may seem, the pulsation of the arteries in the earlier ages of medicine was thought to be a phenomenon of the same character as the expansion and collapse of the chest in respiration. Down to the time of Galen, the arteries were supposed to be filled with air, and their pulsation was supposed to be a kind of fanning or refrigerating process, by which the air was distributed to all parts of the body, so that the organs might be cooled by this bellows-like motion of the arterial tubes. Now, however, we know the fact to be quite different. The arteries are filled with blood, and their movement is caused by the alternate action of the heart and their own elastic resilience.

The pulsation itself, therefore, we understand, but we do not yet understand all its peculiarities and modifications. How is it, for example, that the pulse is not synchronous or simultaneous, in its occurrence, all over the body? We have one pulse at the heart, produced by the contraction of the left ventricle; another at the carotid, which some observers can distinguish as coming a little later than that at the heart; another at the wrist, which is very perceptibly later; and another at the ankle, in the posterior tibial, which is later still. This difference in the time of the arterial pulsations has been explained by supposing that the cardiac impulse travels outward like a wave, and so requires a certain time to reach the distant points of the circulatory system. But this explanation, though apparently so simple, is in reality insufficient. For we must recollect, that though the arteries are yielding and distensible, the blood itself is incompressible and inelastic. It must, therefore, transmit a mechanical impulse instantaneously in all directions, and cannot permit any delay in communicating the pulsations of the heart.

It has recently been found by accurate examination, that this is really the case. M. Marey has shown in a very satisfactory manner that the cardiac impulse is communicated, at one and the same instant, to the entire arterial system. All the arteries are distended simultaneously, by each stroke of the heart. The only difference in the pulsations near the heart, and at a distance, consists in the sudden or gradual manner in which the arterial distention takes place.

This fact is shown in the following manner: A long elastic tube is taken, and hung in several festoons between hooks which support it in its place. One end is connected with a forcing-pump, which injects through it, by alternate strokes, a stream of water, which escapes by the opposite extremity. Upon each festoon of the tube rests a little movable index, so arranged that it can be raised by a very slight force. At every stroke of the forcing-pump, therefore, the tube is distended, and each index is moved in a corresponding manner. Each index also marks upon a revolving cylinder of white paper in such a way as to register the rate and extent of its own movement. When the machine is in operation, accordingly, the different curves marked upon the paper show the exact manner in which different parts of the tube are distended by the strokes of the forcing-pump.

Now, it is found by such an experiment, that the expansion of the tube, in different parts of its length, *begins* at the same instant. The only difference is in the extent of the expansion, and the rapidity with which it is accomplished.

In the end of the tube nearest the forcing-pump, as in the arteries nearest the heart, the expansion is very wide and very sudden. The tube is almost instantly dilated to its utmost extent, while the reaction which follows is slow, and occupies all the rest of the time of a single pulsation. At a little distance further on, the expansion is more gradual, taking a longer time to reach its maximum, and is also less in extent than before. This is because, in the immediate neighborhood of the heart, almost the whole force of the cardiac impulse is occupied in expanding the vessel; and this expansion is, therefore, quick and sudden, like the stroke of the heart itself. But after that, comes the elastic reaction of the aorta, which urges the blood onward into the next portion of the arterial tube. Here, accordingly, the distention of the vessel is due partly to the stroke of the heart, which is quick, and partly to the resiliency of the aorta, which is slow. Its expansion is *completed*, therefore, a little later than in the former instance, though it *begins* at the same instant. For a similar reason, the expansion is less in extent at a distance from the heart, because its impulse is at first partly expended in dilating the aorta behind the point examined, and is afterwards replaced by the reaction of the same vessel.

In the neighborhood of the heart, accordingly, the arteries expand with a brusque and violent motion, but their reaction is slow and gradual. This is followed by another brusque and sudden dilatation; and so on again. At a greater distance, the dilatation becomes more

gradual, and more proportionate to the reaction; while at a greater distance still, the expansion of the artery occupies an equal time with its reaction; so that the expansion and reaction of the vessels become more uniform, similar, and equal to each other, the farther we recede from the centre of the circulation.

This explains the apparent retardation of the pulse towards the extremities of the arterial system. Near the heart, the pulsation of the arteries appears to be synchronous with the cardiac impulse, because their distention is so rapid and sudden; but at a distance, it seems to be later, because it takes a longer time for its completion.

You see, then, how the whole movement of the blood is equalized by the elastic reaction of the arteries; and that, though the blood is thrown out from the left ventricle in distinct and interrupted jets, its motion afterwards becomes constantly more steady and uniform. This change is owing entirely to the elasticity of the vessels. As the blood is discharged from the heart and enters the aorta, it is at once subjected to the reaction of the entire arterial system, and is forced to circulate under this pressure.

This brings us to the study of another very important point in the history of the circulation, viz., the *arterial pressure*.

As soon as the blood has left the heart and is contained in the arterial system, it is subject to a very remarkable, firm, and constant compression, which is exerted upon it by the elastic walls of the arteries themselves. You remember, however, that the arteries consist of a series of cylindrical tubes, whose cavities are continuous with each other throughout; and this reaction, therefore, which they exert by their elasticity, is equally felt throughout the entire system.

Now, the pressure which is thus exerted upon the blood in the arterial system can be shown by a very simple experiment.

I have here a dog which I will etherize, and then insert the extremity of a narrow glass tube into the carotid artery. You will then see the blood forced upward into the tube in such a way as to indicate the extent and power of the arterial compression. The carotid is first to be exposed and separated from the pneumogastric nerve and other adjacent parts. You now see the vessel running along the bottom of the wound, and pulsating with its usual force. Its upper portion is then to be tied, and the vessel being temporarily secured by the fingers, an opening is made into it at the point where the glass tube is to be applied. The lower end of the instrument is furnished with a short piece of india-rubber tubing, terminated by a brass nozzle, which is inserted into the artery and secured by ligature. The lower part

of the tube is filled with a solution of carbonate of soda, to prevent the too rapid coagulation of the blood.

Now, on releasing the artery and allowing the blood to pass into the glass tube, it rises, you observe, nearly to the top of the tube, to a height of about five feet and a half. Sometimes the pressure of the blood in the carotid of the dog is equal to five feet; sometimes five feet and a half, and sometimes six feet. This difference depends not so much upon the size of the animal as upon the condition of the circulatory system at the time.

You see, moreover, that the column of blood is not quite steady in the tube, but that it sometimes rises near the upper end, and then, in a few seconds, falls several inches below it. This motion corresponds with the movements of respiration. During inspiration the column of blood is lower, and during expiration it is higher than usual. Beside this slow oscillation, there is also another rapid one. The level of the blood moves up and down by a series of short and tremulous oscillations, which are synchronous with the pulsations of the heart. Both these oscillatory movements we shall study more fully hereafter. But notwithstanding them, you see that the level of the blood is constantly maintained in the tube, at or above a certain height, by a continuous and lasting pressure.

The column of blood, sustained in this way, is very nearly the same in animals of different size. There is but little difference in this respect between the horse, the dog, and so small an animal as the rabbit; the diameter of the tube employed being, of course, proportionate in each instance. There is also but little difference in the different arteries of the same animal. The column of blood stands at nearly the same level, whether the tube be inserted into the carotid, the femoral, or one of the smaller branches of these vessels; for the arteries all communicate with the aorta, and of course the pressure is transmitted almost equally to every point.

Where the arteries inosculate freely with each other by transverse branches, this pressure may even be shown by inserting the tube into a vessel which is separated from the heart by division or ligature. This is the case, for example, with the carotids. In this animal, we have divided the left carotid and secured both extremities by ligature. I will now find the upper extremity of the vessel, and, taking off the ligature which was placed upon it, introduce into it the brass nozzle of our instrument, as before. You see, the blood passes again into the tube from the upper portion of the carotid, and though the column of blood is not so high as before, it is, nevertheless, a very con-

siderable one, and shows the communication of the arterial pressure from the other vessels of the head and neck.

There are various instruments which have been contrived for showing the pressure of the blood in the vessels, more compact and convenient for use than the long glass tube which we have just employed. Here is one of them, which is called the *Hæmodynamometer*. It consists of a bent glass tube, open at both ends, in the form of an inverted siphon, or letter U. In the lower curved portion, there is placed a quantity of mercury, which stands, of course, at the same level in both of the upright limbs, when the instrument is held in a vertical position. It is calculated to act, therefore, as a mercurial guage, and will measure accurately any excess of pressure exerted upon one extremity, by the descent of the mercury in the corresponding portion of the tube and its rise in the opposite limb. One extremity of the instrument is furnished with a short flexible tube and brass nozzle; and the nozzle being inserted into the artery of a living animal, the pressure of the blood, and its oscillations, may be read off upon a graduated scale, by the rise and fall of the mercurial column. The mercury is generally displaced about six inches, which is equal, in weight, to about six feet of water, or a little over five and a half feet of blood. This instrument, therefore, gives the same result as the simple straight glass tube, but in a more compact form.

Before using this tube, it is necessary, as in the other cases, to fill a portion of it with a solution of carbonate of soda, in order to prevent the coagulation of the blood.

I will now take up again the lower extremity of the carotid artery in this animal, and insert into it the nozzle of the instrument. You observe, before placing the two in contact, that the mercury stands evenly and at zero in both limbs. Now I have introduced the tube into the artery, and you see that the mercury is immediately depressed in one branch of the tube, and that it rises in the other. The depression now varies between sixty and sixty-five divisions of the scale in the right-hand tube, and there is a similar elevation on the other side. This is nearly equal to three inches of mercury on each side, or six inches on both sides.

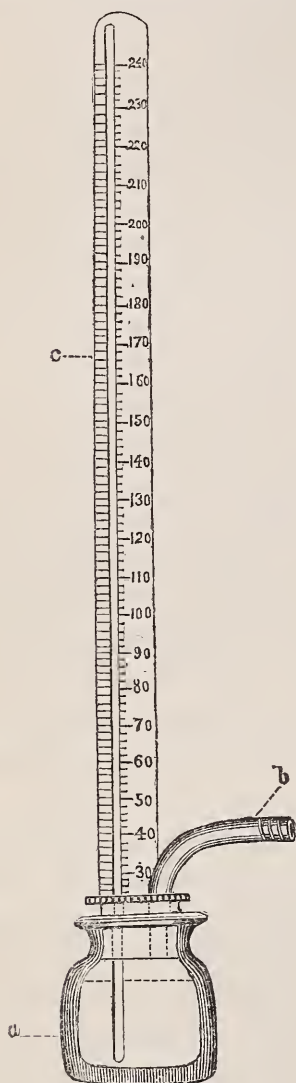
The divisions of the scale are marked in French millimetres; each millimetre being equal to about $\frac{2}{3}$ of an inch.

Now notice, gentlemen, if you please, the different effects of the arterial pressure and the cardiac pressure. The pressure of the arterial system is indicated by the entire and constant displacement of the mercury in the limbs of the instrument; while the effect of the cardiac

pressure is the incessant oscillation which you observe in the level of the mercury. The liquid is depressed more strongly as the heart contracts, and less so as it relaxes. The column now varies between sixty and seventy millimetres on each side. That is, the force of the heart's contraction is equal to ten millimetres on each side, or twenty millimetres in the whole; which is rather less than one inch of mercury, or one foot of blood.

The excess of the cardiac pressure, therefore, is nearly equal to one foot of blood, while the reaction of the entire arterial system is between five and six feet.

Here is another instrument, constructed upon the same principle with the other, but still more compact in form, and more convenient. It is called the *Cardiometer*. It consists of a small, but strong, wide-mouthed glass bottle, with a closely-fitting brass stopper. Through the stopper there passes a short brass tube, which is bent at right angles, and which is furnished with a nozzle, to be inserted into the artery. From the lower part of the bottle there also rises a narrow glass tube, about ten inches in height, open at both ends. The bottle is filled with mercury, and when the brass nozzle is made to communicate with an artery, the pressure of the blood acts upon the mercury and forces it up into the glass tube to a corresponding height. This instrument is found to be much better than the other for showing rapid variations of pressure by the oscillations of the mercury.



CARDIOMETER.

- a, Glass Jar containing Mercury.
- b, Brass Tube, to be connected with the artery.
- c, Upright Glass Tube, with graduated scale.

To illustrate its operation, I will detail several experiments which I have performed with it in the following manner:

Experiment.—A healthy dog, weighing a little over 31 pounds, was

etherized six hours after feeding, and the cardiometer applied to the cardiac extremity of the left carotid artery.

At first, the mercury oscillated in the upright tube as follows:

130 to 160 (millimetres.)

135 to 165.

150 to 170.

These oscillations were mostly due to the effect of the respiratory movements, the mercury going up to 160, 165, and 170 at the time of expiration, and falling to 130, 135, and 150 at the time of inspiration. The *cardiac impulses*, of which there were two or three for each inspiration and each expiration, were not more than five millimetres each; so that the mercury mounted, say from 130 to 160 at one expiration, showing, during its ascension, several small cardiac oscillations, of five millimetres each.

After the animal was more thoroughly etherized, so that the respirations became very calm, the disturbing influence of the respiratory movements disappeared, and each cardiac impulse was marked by an oscillation of 10, 12, or even 15, as follows:

160 to 175.

190 to 200.

150 to 162.

Cardiac pulsations=10 to 15 millimetres.

A few minutes afterward, the animal still remaining calm, but beginning to recover a little from the effects of etherization, the mercurial oscillations again indicated slightly the disturbing influence of the respiratory movements, as follows:

145 to 152.

140 to 150.

Cardiac pulsations=7 to 10.

Still later, the movements of respiration created an oscillation of 10 millimetres, as follows:

140 to 150.

The cardiac pulsations being only 5 each.

The animal was then freshly etherized, when the respiratory oscillations again disappeared, and the cardiac pulsations at the same time became more strongly marked, as follows:

150 to 160.

165 to 180.

150 to 165.

Cardiac pulsations=10 to 15.

One grain of woorara in solution was then injected into the sub-

cutaneous areolar tissue of the left thigh. The poison, in this instance, was unusually long in producing its effects, (viz., from ten to fifteen minutes,) owing, probably, to the etherized condition of the animal. During this interval, the following phenomena were observed:

Soon after the injection, the cardiac pulsations were well marked, equalling 10 millimetres each; the respiratory oscillations at the same time being only 5 millimetres, as follows:

150 to 160.

155 to 165.

160 to 170.

Cardiac pulsations=10.

But during the access of laborious respiration, which came on once or twice, the *respiratory oscillations* became very extensive, equalling 110 millimetres, thus:

110 to 220.

As soon as the poison began to produce its specific effects, the trachea was opened, the nozzle of a bellows inserted into it, and artificial respiration kept up. The *cardiac pulsations* were then pretty constant, at five millimetres each. But the effect of the artificial insufflation upon the *respiratory oscillations* was just the opposite of that produced by natural inspiration.

In natural respiration, the mercury rises at the time of expiration, and falls at the time of inspiration. Now, however, as might be expected, the mechanism of respiration being changed, its effect upon the arterial pressure was different. At each artificial insufflation the mercury mounted in the tube for 20 or 25 millimetres, as follows:

155 to 180,

and descended again, in the intervals, to its former level; the constant or arterial pressure remaining about the same, viz., 150 or 155 millimetres.

When the artificial insufflation was suspended the arterial pressure was at once increased, the mercury mounted in the tube to 200 or thereabout, and oscillated at that level by cardiac pulsations of 10 millimetres each, thus:

190 to 200;

200 to 210;

but immediately fell again to 155, when the insufflation was recommenced, the cardiac pulsations again becoming reduced to five millimetres.

When the animal had become fully affected by the woorara, so that there was complete loss of consciousness, no voluntary movement, and

no respiratory movement of the lips or nostrils, the oscillations produced by insufflation were as follows:

150 to 180.

Cardiac pulsations=5.

The chest of the animal was then opened, and the heart and the great vessels exposed to view. A little blood was lost in the operation. Immediately afterward, the cardiac impulses were sensibly weakened, being reduced to three millimetres each; but in a short time they recovered strength a little, and were again five millimetres. Owing to the removal of the thoracic parietes, also, the effects of *insufflation* on the mercurial oscillations now disappeared, and the only oscillations perceptible were those due to the cardiac movements.

Very soon after opening the chest the entire arterial pressure diminished very considerably, the level of the mercury falling 100 millimetres, and its oscillations being as follows:

45 to 50.

50 to 55.

70 to 75.

Cardiac pulsations=5.

On suspending insufflation, the pressure in the arteries was increased as before, and the cardiac pulsations became very long and distinct, thus:

100 to 150.

130 to 200

Cardiac pulsations=50 to 70.

On recommencing insufflation, the oscillations again fell to their former level, as follows:

50 to 55.

Cardiac pulsations=5.

The experiment was then terminated.

From these observations, gentlemen, it is easy to see that there are three principal elements in the pressure or force with which the blood circulates in the arterial system.

The first of these is the *constant* or *arterial* pressure. This depends upon the reaction exerted by the entire arterial system by means of its elastic parietes. The blood, contained in a series of branching tubes provided with elastic walls, and completely filling their cavities, is subjected thereby to a steady and continuous pressure. This pressure is felt equally, or nearly so, at all parts of the arterial system, and in all directions, as if an elastic bag were filled with a fluid which had been forcibly injected into it. Accordingly, if an opening be made in

any part of the arterial system, the blood is driven out with a certain force by the reaction of the vessels themselves. If a tube filled with mercury be inserted into the mouth of a divided artery, and secured by ligature, the blood will displace the mercury from its level, until the weight of the mercurial column exactly counterbalances the reaction of the arteries. The arterial pressure can thus be measured; and we have found that it is usually equal to about 150 millimetres, or six inches of mercury.

Beside the constant or arterial pressure, however, the blood is also subject to an intermitting action, viz., that of *the cardiac impulse*. At every contraction of the heart, more blood is forcibly thrown into the arteries, and, of course, the pressure is momentarily increased. When the heart relaxes, the superabundant portion of blood passing steadily away by the capillaries and veins, the increased pressure is taken off, and the arterial reaction only remains. There is, accordingly, a series of rapid oscillations in the column of mercury, corresponding with the action of the heart. At every beat the level of the mercury rises, at every relaxation it falls. The extent of these oscillations measures the force of the heart and the resistance of the artery. If the arteries were entirely unyielding, the whole force of the heart's contraction would be manifested by the rise of the mercury in the tube of the cardiometer. But the arteries are distensible and elastic; so that a portion of the heart's impulse is occupied in dilating their walls, and only a part of its force is shown by the immediate rise of the mercurial column. We have, therefore, a constant pressure, due to the arterial elasticity, and an oscillating pressure, due to the superior force of the heart's pulsations.

While the arterial pressure, also, is the same in all parts of the body, the influence of the cardiac pulsations diminishes from the heart outward. For at a distance from the heart, in the radial or tibial artery, for example, the force of the heart's impulse has already been divided and subdivided in distending the arterial coats; and the elastic vessels, also, return to the blood, in the intervals of pulsation, more and more of the force with which they were distended; so that the difference in the pressure on the blood, corresponding with the heart's pulsations, becomes less and less, from the centre to the circumference; but the mean or constant pressure remains the same.

The third force exerted upon the blood in the arteries is that of the *respiratory movements*. The effect of this is seen in the rise and fall of the mercury every time that the chest expands and collapses. At the moment of expansion, the pressure is lifted off from the heart and large

vessels by the rising of the walls of the chest; the tension of the arterial system is consequently diminished, and the mercury falls a little in the cardiometer. When the chest collapses again, on the other hand, this pressure is restored, and the mercury rises to its former level. There results, accordingly, a series of oscillations, which are distinct from those produced by the cardiac pulsations, and which are synchronous with the movements of respiration. These respiratory oscillations are but slightly perceptible in the ordinary condition of the animal, and not at all so when the breathing is very easy and quiet; for then, the inspiration is so slow and gradual, that the air readily penetrates the lungs, and immediately counterbalances the diminished pressure of the thoracic parietes. But whenever the breathing becomes rapid and laborious, the difference of pressure in inspiration and expiration is so marked, that it produces a sensible effect on the rise and fall of the mercurial column.

There are, accordingly, as we have seen in various experiments, two sets of oscillations in the cardiometer—one of them more rapid, corresponding with the arterial pulse—the other a slow one, corresponding with the movements of respiration. As each movement of respiration, also, corresponds in time with several successive cardiac pulsations, the movements of the mercurial column bear the same relation to each other. At each expiration the mercury rises in the tube, by three or four short successive strokes, to its full height, and then falls, during inspiration, by a descending series, to its former level. These appearances have been mistaken by some experimenters, and have been supposed to indicate a peculiar irregularity in the force of the heart's action; but a little observation will show that they are due to the cause I have just described; for the ascending movements of the mercurial column always take place at the time of expiration, and the descending movements at the time of inspiration.

These respiratory oscillations sometimes reach the extent of thirty millimetres or upward, while the cardiac impulses are not more than five or ten millimetres each. But when the respiration again becomes quiet, the disturbing influence of its movements disappears, and the only oscillations then perceptible are those due to the cardiac pulsations.

Before leaving this part of the subject, gentlemen, I will call your attention to some circumstances which modify the pressure of the blood in the arterial system.

1st. One of these circumstances is the condition of rest or activity of the animal subjected to experiment.

While the animal is in a quiescent condition, the arterial pressure is moderate—averaging about 150 millimetres; but as soon as he begins to make any exertion, it increases, and may reach 175 or 200 millimetres. If you were to wake up this animal from his etherized condition and make him struggle or cry, you would immediately see the arterial pressure very much increased. This is because, in the act of struggling, the muscles of the trunk and extremities are contracted, and the chest is forcibly compressed. This unusual compression of the chest not only crowds the blood from the heart and large vessels into the arteries, and so increases the tension of these vessels, but also has the effect to engorge them by a backward action through the veins and capillaries. The arterial system is therefore fully distended, and its pressure upon the blood increased, during the act of struggling.

2nd. A similar increase of the arterial pressure is produced by whatever causes a general or local congestion of the arterial system. Thus, anything which limits or confines the space occupied by the arteries, without at the same time diminishing the quantity of blood contained in them, will produce an increase of the arterial pressure. Now the ligation of an artery has precisely this effect. If the femoral artery be tied, and the circulating fluid thus prevented from gaining access to the corresponding limb, all the blood of the body will at once be distributed to the remainder of the arterial system. The quantity of blood, therefore, will be increased in proportion to the space which it occupies, and a corresponding increase of tension will be manifested throughout the rest of the arterial system.

Bernard has found, for example, that on applying the cardiometer to the left carotid artery of a dog, the minimum pressure was 110 millimetres; but after tying the carotid of the opposite side, it rose to 165 millimetres. On another occasion, the pressure rose, owing to the same cause, from 150 to 185 millimetres. And the larger the number of arteries tied, the greater will be the excess of pressure produced in the rest of the circulatory system.

It is evident, accordingly, that if the cardiometer be applied in such a way as to cut off the access of the blood to any considerable part of the vascular system, it will disturb the circulation in the same way as if the vessel were simply ligatured at that point, and the instrument will indicate an excessive and unnatural pressure. In order to avoid this difficulty, the cardiometer should be applied to some part of the arterial system where it will not materially interfere with the passage of the blood to the parts beyond. For this purpose, the carotid arteries are by far the best in the body. They are easily exposed and

of a convenient size, and their branches inosculate so freely, in the head and neck, with each other and with the vertebrals, that the blood still finds its way readily into these parts after one of the carotids has been obstructed by the instrument. But in most other regions of the body, the application of the cardiometer upon the main artery cuts off all the blood from the part, and produces an unnatural rise in the arterial pressure.

It is for this reason, more than any other, that the cardiometer gives different results when applied to arteries in different regions of the body. Milne Edwards, for example, in his admirable work on Comparative Anatomy and Physiology, mentions that the inequality of pressure in the various arteries is not proportional to their distance from the heart, nor the same in different regions of the body; and that the pressure of blood in the femoral arteries, for example, is greater than that in the carotids.

This is because, when the cardiometer is applied to the femoral artery, the arterial current, as I have already mentioned, is *blocked* or stagnated in the thigh; but when it is applied to the carotid, the current is left nearly free and natural, owing to the abundant arterial inosculature about the neck and head.

If the proportion of blood in the vascular system be diminished, on the other hand, the arterial pressure falls in a corresponding degree. The abstraction of blood by hæmorrhage produces this effect. If the bleeding be moderate in amount and rapidity, it affects both the arterial and the cardiac pressure. But the cardiac pulsations feel the effect of the hæmorrhage more quickly than the steady pressure due to the reaction of the arterial walls. The oscillations of the mercury, accordingly, are first diminished in extent, as the force of the heart's action is lessened; and afterward the arterial pressure is also reduced, owing to the diminished quantity of blood in the vascular system. Bernard once applied the cardiometer to the carotid artery of a dog, and then subjected the animal to a moderate bleeding from the jugular vein. During the first nine minutes of the bleeding, the oscillations of the mercurial column, due to the heart's pulsations, were diminished in extent from 35 millimetres to 25, 20, 15, 10, and 5. But the arterial pressure remained nearly steady at 110 millimetres, until the tenth minute, when it fell to 95, and afterward to 90, 85, and 80 millimetres.

It is noticed, also, that the arterial pressure recovers itself very rapidly after stopping the hæmorrhage, but the cardiac pulsations remain enfeebled for a considerable time longer. This is undoubtedly

because the *mass* of the blood is very soon replaced after a hæmorrhage, by absorption of serous fluid from the tissues, and the physical distention of the arteries is immediately recovered; but the *chemical constitution* of the blood is less easily restored, and the heart continues to feel this change until it is again rectified by the process of nutrition.

3d. The arterial pressure is also very much increased by any temporary obstruction to the respiration. We already understand why it should be so, since we have seen, in a previous lecture, that the immediate effect of an obstruction to the breathing is a congestion of the arterial system. By means of the cardiometer we can demonstrate and measure the extent of this congestion. If the instrument be applied to the carotid artery, and the respiration of the animal be then arrested, the mercurial column immediately begins to rise in the tube to a higher level.

In the experiment which I related to you, for example, the level of the mercury rose at one time, after stopping respiration, from 150 to 200 millimetres, and oscillated about that point by pulsations of ten millimetres each. In another instance, the arterial pressure, which had fallen to 60 or 65 millimetres in consequence of the opening of the chest, rose to 150 and 200 after stoppage of respiration.

The heart's pulsations, also, are increased in extent after the breathing has been suspended for a short time, amounting sometimes to 125 or 130 millimetres. The level of the mercury is then thrown up at each pulsation to 250 or 260 millimetres, and sinks back in the intervals to 150 or 170. During the latter part of the process, however, when the congestion of the arterial system passes off and that of the heart begins, both the arterial pressure and the cardiac oscillations are again reduced, and the mercury gradually falls in the tube, with the decreasing force of the circulation.

The following experiment will illustrate the alterations which take place in the vascular pressure after stoppage of the respiration:

Experiment.—A dog was poisoned with woorara, and artificial perspiration kept up while the thoracic duct was exposed at the root of the neck, and a silver canula inserted into it, for the purpose of collecting the chyle. The chyle was collected in this way for half an hour, after which the canula was withdrawn from the duct.

The cardiometer was then applied to the left carotid artery. The artificial respiration was kept up by insufflations through a bellows inserted into the trachea. The insufflations were made at the rate of forty per minute, and were moderate in force. They exerted no perceptible effect upon the oscillations of the mercury, which were altogether syn-

chronous with the movements of the heart. The movements of the mercurial column were at first as follows:

140 to 150.

135 to 145.

Cardiac pulsations=10.

After a short time the cardiac pulsations became feebler and more frequent, viz., 150 to 160 per minute, and as follows:

125 to 130.

130 to 135.

Cardiac pulsations=5.

The insufflations were then stopped. The effect of the stoppage was to raise the arterial pressure, and almost simultaneously, also, to increase the extent of the cardiac pulsations. The cardiac pulsations also became less frequent, and more easily counted. They were as follows:

Oscillations of the mercury.	Cardiac pulsations.	Oscillations of the mercury.	Cardiac pulsations.
120 to 130	10	150 to 260	110
120 " 140	20	150 " 250	100
90 " 150	60	150 " 245	95
70 " 170	100	140 " 240	100
110 " 200	90	130 " 240	110
130 " 260	130	150 " 250	100
140 " 240	100	140 " 240	100
80 " 170	90	140 " 240	100
100 " 210	110	140 " 255	115
150 " 240	90	140 " 240	100
100 " 210	110	150 " 250	100
140 " 270	130	140 " 255	115
150 " 270	120	140 " 260	120
140 " 240	100	140 " 260	120
130 " 240	110	130 " 250	120
120 " 220	100	120 " 230	110
160 " 260	100	110 " 230	120
170 " 270	100	90 " 195	105
130 " 200	70	80 " 185	105
120 " 220	100	90 " 210	120
150 " 240	90	90 " 220	130
170 " 270	100	85 " 210	135
140 " 220	80	80 " 200	120
120 " 230	110	90 " 215	125

Oscillations of the mercury.	Cardiac pulsations.	Oscillations of the mercury.	Cardiac pulsations.
80 to 200	120	90 to 135	45
70 " 195	125	80 " 130	50
90 " 210	120	70 " 110	40
80 " 210	130	65 " 80	15
80 " 210	130	60 " 70	10
90 " 220	130	55 " 65	10
100 " 190	90	50 " 60	10
90 " 165	75	50 " 55	5
90 " 180	90	40 " 45	5

From this point the oscillations continued to diminish in height and extent, until they became altogether imperceptible.

By the use of the cardiometer we can satisfy ourselves of many important points in regard to the effect of various conditions upon the heart's action on the one hand, and the arterial pressure on the other. I have already mentioned to you that almost universally a *rapid* pulse is deficient in strength, while a *slow* pulse acts with more force and vigor. This can readily be seen in the variations which show themselves while experimenting with the cardiometer. I have almost invariably found that whenever the pulse of the animal becomes accelerated during an experiment, the oscillations of the mercury diminish in extent; while, if the pulse becomes slower, the oscillations are sensibly increased, though the constant pressure may remain unaltered.

In one experiment, for example, while the pulse was 160 per minute, the mercurial oscillations were 10 millimetres each; but after the pulse had fallen to 130 per minute, the oscillations were 15 millimetres each. At another time, the pulse rose in frequency to 150 or 160 per minute, and the oscillations were at the same time reduced from 10 to 5 millimetres each. On one occasion the force of the heart's pulsations having been reduced to 3 millimetres each, the pulse rose at the same time to 190 per minute. The force of the cardiac pulsations, therefore, is in inverse ratio to their rapidity.

I have observed, also, that the ordinary varieties of *woorara*, which act so powerfully on the voluntary muscles, exert little or no specific influence on the action of the heart. It may even increase somewhat the force of the heart's movements, while it lessens their rapidity, by destroying the consciousness of the animal, and thus preventing his being excited or agitated by external causes. The operation of *opening the cavity of the chest*, on the contrary, immediately depresses considerably both the cardiac pulsations and the arterial pressure, the

pulse being at the same time very much increased in frequency. We can never, therefore, inspect the action of the heart, in its perfectly normal condition, by opening the chest. After this operation, the movements of the organ are always much more rapid than natural, and enfeebled to a corresponding degree. For the removal of the thoracic parietes takes away the external support from the lungs and arch of the aorta, and so diminishes the tension of the whole arterial system; while the exposure of the heart, and its contact with air, produce a comparatively irritable and enfeebled state of its muscular walls.

These points are illustrated by the following experiment:

Experiment.—A full-grown, healthy dog, weighing about 20 pounds, was etherized in the early part of the day, and the left carotid artery exposed by dissection, and separated from the surrounding parts for about two inches of its length. The wound was then closed by a suture, and the animal left to himself.

At half past one, P. M., the dog had completely recovered from the effects of the ether. He suffered no apparent inconvenience from the wound in the neck. When placed upon the table, his pulse was 174 per minute, of good quality.

The animal was then held in position, by assistants, upon his back, where he remained perfectly quiet, and without struggling. The wound was then opened and the cardiometer applied, in the usual way, to the left carotid artery. This operation did not produce any visible agitation in the animal, nor any sign of pain.

Immediately afterward, at 15 minutes before two, the pulse was 160 per minute, and the oscillations of the mercury in the cardiometer as follows:

135 to 145.

140 " 150.

130 " 140.

125 " 135.

Cardiac pulsations=10.

The animal remained, during this time, perfectly quiet, with a calm and uniform respiration.

At five minutes before two o'clock, the pulse had fallen to 130 per minute, and the oscillations were as follows:

125 to 140.

120 to 135.

120 to 135.

Cardiac pulsations=15.

At four minutes before two, one grain of woorara, in solution, was injected under the skin of the abdomen. The only immediate effect of this operation was a slight increase in the rapidity of the pulse, together with a diminution in force, the oscillations being reduced to ten millimetres each. This was probably owing to the slight degree of pain inflicted by the injection.

At five minutes past two, the pulse was again reduced to 140 per minute.

Oscillations, 125 to 140. Cardiac pulsations=15.

At ten minutes past two, the signs of poisoning by woorara became evident. The trachea was opened, the nozzle of a bellows inserted into it, and artificial respiration kept up.

As soon as the disturbance consequent on the temporary obstruction to respiration had ceased, the pulse was found to have decidedly diminished in frequency and gained in force.

At fifteen minutes past two, the pulse was 62 per minute, and the oscillations were as follows:

125 to 150.

135 to 160.

125 to 150.

Cardiac pulsations=25.

At half past two the pulse was 80 per minute, and the oscillations

135 to 165.

130 to 160.

Cardiac pulsations=30.

At thirty-five minutes past two, the chest was opened in the usual manner, so as to expose the heart and lungs. Immediately afterward it was found the pulse was very much accelerated and excessively reduced in force. The arterial pressure was also much diminished. The pulse was 190 per minute, and the oscillations as follows:

90 to 93.

92 to 95.

87 to 90.

Cardiac pulsations=3.

On cutting away the pericardium and fully exposing the heart, it was seen that the action of the organ was not perceptibly weaker than it usually is, after being exposed to view in this way. The movements of the heart continued, under the use of the artificial respiration, as in other similar experiments; but the mercury in the cardiometer-tube sank gradually below 80, 70 and 60, and finally below 40 millimetres, the oscillations remaining very weak, and measuring only two or three millimetres each.

On stopping the artificial respiration, the mercury immediately rose, as usual, in the cardiometer, but only to 160 or 170 millimetres, and afterward sank out of sight again as the heart's action finally ceased.

I will now, gentlemen, terminate this lecture by stopping the respiration in this animal, to whose carotid artery we attached the mercurial gauge with a double tube. For this purpose, I will inject into the femoral vein a small quantity of solution of woorara. The injection is made slowly, so as not to produce any mechanical disturbance of the circulation.

The displacement of the mercury, you observe, on each side of the instrument is between thirty and forty divisions of the scale, and is gradually diminishing. It is less than usual, owing to the long time the animal has been kept under the influence of ether. It is now about thirty-five divisions. The respiration, within a minute and a half after the injection of woorara, is already becoming very quiescent. You observe a twitching about the eyes of the animal, which can often be seen during the operation of this poison.

At this time, the pulsations of the heart continue with a tolerable degree of force and regularity. The mercury stands at twenty to twenty-five divisions. Now the respiration has entirely ceased, and I can distinctly feel the pulsations of the heart through the ribs. The mercury has fallen below twenty, and its oscillations are very weak.

Now, you observe, the mercury begins to rise again in the tube of the instrument. It is now twenty-five divisions, now twenty-seven, and now thirty. This increased arterial pressure, you will understand, is owing to the stoppage of respiration and the obstruction of the capillary circulation. The column of mercury has now risen to forty divisions. The pulsations of the heart at this time are feeble, but recur with the same rapidity and regularity as before. The mercury still has a tendency to rise, showing that the arterial pressure is very much greater than it was a moment after the stoppage of respiration. It has now reached forty-five, and now forty-seven and a half.

Now the arterial pressure begins suddenly to diminish. The mercury falls to forty-two, thirty-seven, thirty-five, thirty. The last stage of the process has now commenced. Regurgitation takes place from the aorta, and the heart becomes congested and paralyzed, while the distention of the arterial system begins to subside and disappear.

You see, now, the phenomenon which is always to be noticed at this stage, viz.—the mercury sinks toward the same level on both sides of the instrument. The pulsations of the heart are longer than before; they occupy a greater interval, and do not recur so rapidly. The mer-

cury has subsided to twenty-five divisions. The heart's pulsations are still very readily felt through the walls of the chest, and are absolutely synchronous with the oscillations of the mercury in the instrument. At every contraction of the heart, the mercury is elevated in the tube; but at each relaxation, the mercury falls farther back than before, because the blood now regurgitates from the aorta into the heart.

The left auricle and ventricle, as well as the right cavities, are now beginning to be distended and paralyzed. The mercury has already fallen to twelve or thirteen divisions, and will very soon come to a level on both sides of the instrument, and finally stand at zero, as the circulation comes to an end.

Lectures on Displacements of the Uterus. By E. R. PEASLEE, M.D., LL.D., Prof. of Obstetrics and Diseases of Women and Children in the New York Medical College.

(Continued from last No. of the MONTHLY.)

LECTURE III.

GENTLEMEN—The displacements of the non-gravid uterus may, for all practical purposes, be arranged under two classes:

1st. Displacements of the whole uterus *downward*—including prolapsus in its various degrees, and inversion. The latter usually occurs, however, in connection with parturition.

2d. Displacements of the whole uterus, or of its body alone, either *forward* or *backward*—anteversion or ante flexion, and retroversion or retro flexion.

I might also add displacement of the whole uterus upward—*elevatio uteri*; and lateral displacements of the body, or of the whole organ. But the former, if uncomplicated, requires no treatment; while the latter are mere complications with the anterior and posterior displacements, or are produced by the direct pressure of abnormal developments within the pelvis, and will be disposed of in connection with the second class of displacements.

Pretermittin inversion of the uterus, for the present, since its most common method of causation separates it, practically, from the others—I shall consider the displacements in the following order:

- | | | |
|-------------------|---|---|
| 1. Prolapsus. | } | Displacements of the whole uterus downward. |
| 4. Inversion. | | |
| 2. { Anteversion. | } | Displacements of the whole uterus, or of its body only—forward. |
| { Ante flexion. | | |

3. { Retroversion. } Displacements of the whole uterus, or of its body
 { Retroflexion. } only—backward.

You will, therefore, entirely isolate prolapsus uteri from the other class of displacements. For, though both classes may present the same local symptoms, as enumerated in my first lecture, and may also ultimately induce the same general symptoms, still the local treatment of the two classes is, as a general rule, conducted on different principles. The local treatment is, however, in both classes, indispensable, and especially determines the curative result. For while it often fails without the general treatment, the latter very rarely succeeds without the local; and the local in many cases succeeds alone. It is, therefore, more especially in aid of the local treatment that the general is resorted to.

But before commencing with prolapsus, I will, in order to avoid repetition, speak of the general or constitutional symptoms common to all the displacements, as I have before spoken of their common local symptoms. And we find that they affect the nervous, the digestive, and the circulatory systems.*

A. *Symptoms affecting the nervous system.*—It is generally understood that those suffering from uterine diseases are the most nervous of all patients. All understand the many symptoms developed by the uterus during pregnancy; and those of diseases of the same organ are neither less numerous nor essentially dissimilar. All the functions of both the cerebro-spinal and the sympathetic nervous system are liable to become deranged. Hence, we find abnormal sensations, impairments of the motor power, and morbid states of the mental faculties, as affections of the former; together with derangements of all the organic functions. It will be remembered that all the symptoms of the displacements which I am about to enumerate may occur in other uterine affections also.

1. As morbid *sensations* due to uterine displacements, I refer to the local pains and other peculiar sensations in various parts of the body, enumerated in my first lecture. But there are others of which I must here take account. Irritation of the bladder, and of the rectum; an exquisitely painful sensitiveness of the vagina; and a distressing pain referred to the point of the os coccygis—are not uncommon symptoms. Also may be added, pain along the crest of the ilium, or above the pubes; a feeling of *malaise* in the region of the ovaries, (especially of the left;) a pain under the edge of the ribs, more frequently on the left side, and suggesting to the patient the idea of heart disease; or

* Dr. Peebles, in *Am. Journ. of Med. Sciences*, Jan. 1853, p. 41–8.

seeming, if on the right side, to indicate some hepatic derangement; pain, tenderness, or swelling of one or both mammæ; pain on pressure over some of the spinous processes of the vertebral column; and an exaggerated sensibility of the surface of the abdomen, or even of the whole body. All the preceding come under the head of reflex pain, before alluded to. I have, in three instances, seen this acute sensibility of the whole abdominal surface developed (to terminate spontaneously in a few hours) by the introduction of the uterine sound. Another symptom, almost pathognomonic, of uterine affections, is the "uterine headache," referred to the top of the head, usually extending over a circular or oval surface, and which is relieved by pressure. Sometimes, however, instead of pain, a "crazy feeling," a sensation of cold or heat, or a numbness, is complained of; or the surface is tender on pressure, or found to be preternaturally hot. Sometimes a neuralgic pain extends over the entire scalp. These sensations in the head are sometimes relieved the instant the uterus is replaced, again to return at once, if it relapses into its displaced condition. The same is also true of many others of the symptoms I have mentioned; and especially those affecting the back, the groins, and the thighs.

On the other hand, numbness or sensations of cold, affecting any part of the body, may frequently be observed; especially numbness in the groin and anterior surface of the thighs; and coldness of the hands and feet are among the most frequently occurring symptoms.

2. Under derangements of the *motor* function we have every variety of deranged muscular action, whether of debility, or of excessive or irregular action. Hence, a feeling of languor, affecting the whole muscular system, or the back and lower extremities alone, and impairing the ability to walk. Various forms of spasmodic affections are also to be added, of which I specify the following: A loud, dry, spasmodic cough, distinguished by the suddenness of its appearance and its disappearance; various modifications of the respiratory movements; spasmodic affections of various sets of muscles, and not seldom of those of the back of the neck, causing the head to be drawn backward. In a word, all those irregular actions which we see developed in *hysteria*, belong here; this disease, in its ever-varying phases, being one of the most common effects of uterine displacements. Very often we find spasmodic twitching in the groins, the leg, the eyelid, and the abdominal muscles.* Palpitation of the heart is also a very common symptom.

3. But not the least important symptoms of uterine displacement

* Dr. Peebles, as above, p. 45.

are those affecting the patient's *mental* condition. We often find her *morale* completely changed. She has, perhaps, become impatient, selfish, is despondent, and avoids society; is irritable, and perhaps thrown, by the least opposition to her wishes, into great excitement, or even into an hysterical paroxysm. The intellectual faculties also suffer. Debilitated by want of exercise, and prolonged confinement within doors, such patients lose their powers of volition and intellectual exertion, and become a prey to their morbid fancies and painful sensations of every kind; a "condition sometimes ending in insanity, and often resulting in a state of mind but little short of it."—*Peebles*. This result, moreover, is not seldom precipitated by the unsympathizing conduct of the husband or friends of the patient; who ignorantly assume that these symptoms are due to a merely imaginary disorder, that the poor victim is merely "nervous."

B. *The symptoms affecting the organic functions* are also very numerous. Some of the symptoms already mentioned are, indeed, often dependent on previous derangements of this class of functions.

1. Much derangement of the digestive and secretive functions occurs in the course of these displacements. Loss of appetite, or a depraved condition of it; constipation, (often due to direct mechanical action, as in cases of retroflexion;) tympanites from accumulation of gas in the intestines; torpidity of the liver; and great variableness in the amount of urine secreted—may be mentioned here. Sometimes anything taken into the stomach becomes so excessively acid as to affect the teeth, and is rejected in that state. Dr. *Peebles* regards this condition as peculiar to uterine derangements. Diarrhœa exists but rarely. From all these causes, the patient becomes thin and sallow, and prematurely old.

2. Finally, anæmia and all its effects ensue from the causes of malnutrition, just mentioned, and the circulatory system, of course, also suffers; this condition also reacting on the functions of the cerebro-spinal nervous system, as before explained. The action of the heart becomes irregular and feeble, or greatly excited—symptoms giving the patient great distress and anxiety; and the minute vessels lose their power of controlling the circulation. Hence those sudden flushes of the face without assignable cause, which so annoy this class of patients. I have, in several instances, seen a permanent blush, in such cases, of the whole neck and upper part of the chest; and the application of a sinapism to the surface sometimes produces an unexpectedly severe result, even endangering sloughing of the skin.

I have spoken thus at length of the constitutional symptoms of uterine displacements, since they alone are often treated to the entire

neglect of their cause, and with the hope of thus putting you upon your guard against the commission of such an error.

I.—PROLAPSE OF THE UTERUS.

This displacement is also variously termed, *descensus uteri*, *prolapsus*, and *procidentia*; and by patients themselves, falling of the womb. It is a displacement downward, without inversion, of the whole uterus.

Dr. Meigs maintains* that “*prolapsus uteri* is an affection of the vagina, and not of the womb itself; cure that canal, and you will find the womb cured also.” If merely intended to inculcate the practical fact that *prolapsus* generally requires mechanical treatment applied *per vaginam*, this assertion has an appearance of correctness; but as a definition of *prolapsus*, or as a literal expression of fact, even in regard to treatment, it is very objectionable, and quite untenable.

1. It does not designate the particular affection of the vagina which *prolapsus* is, and therefore does not define the latter at all. It must refer to the shortening, or inversion, or both, of the vagina; but these are not *prolapsus uteri*. If so, this expression would be quite superfluous.

2. Dr. Meigs' assertion identifies *prolapsus* with its effects. The uterus can be displaced downward only by falling into the vagina, and descending in the course of this canal. And since the vagina is attached above, around the cervix, as before explained, that portion must descend with the cervix uteri, and inversion of the vagina from above downward must ensue. Inversion of the vagina is, therefore, a direct and necessary effect of *prolapsus uteri*, and this inversion, of course, produces a virtual shortening of the vagina as a secondary effect of *prolapsus*. Inversion and consequent shortening of the vagina are therefore not *prolapsus*, any more than deformity of a limb is fracture.

3. This proposition also exemplifies the *prima facie* inconsistency of asserting that a particular condition of one organ is an entirely different condition of *another* organ; as if I should say that derangement of the stomach is inflammation of the eyes.

4. Finally, the assertion that the *prolapsus* is cured by curing the vagina, is not strictly correct in any case of *prolapsus*, and is the very reverse of correct in most cases. For, in very many cases, the cure is effected by treatment applied to the uterus directly, and not to the vagina at all; while it is directly applied to, and for the sake of cur-

* Woman and her Diseases, p. 200.

ing the vagina, only in the proportionally very few instances in which a disease (as relaxation) of the vagina was the original cause of the prolapsus. A pessary, even, is usually applied, not to cure the vagina, but to keep the uterus from descending into the vagina—*i. e.*, to cure the prolapsus, and thus allow the vagina to resume its normal condition.

I have made these remarks to guard you against the idea that the treatment of prolapsus should be directed exclusively to the vagina; which the assertion I have objected to might lead you to adopt. For we shall see that it should be instituted far more to remove the causes of prolapsus, than to cure its effects. The following proposition, therefore, though liable to most of the objections I have raised to the one I have quoted, is much to be preferred to it: "Inversion, with consequent shortening, of the vagina, is prolapsus uteri; cure the prolapsus, and the vagina will be cured as a matter of course."

Prolapsus uteri may, therefore, be defined to be, *a descent, without inversion, of the uterus into, or through the whole of, the vagina; necessarily producing a proportionate inversion and consequent shortening of that canal.*

It is the most common form of uterine displacement. It may occur in all ranks and conditions of society, in the married and the unmarried, and at all ages. Dr. Alexander Monroe speaks of an instance in a child but three years of age. It, however, occurs more rarely in the virgin state, unless from some malformation, than the second class of displacements. It is the most common in those who have borne children, and quite often occurs after rupture of the perineum.

The average distance of the os uteri from the ostium externum is (Lect. 1) $3\frac{1}{2}$ inches; though, in some cases, it is not more than 2 inches. Still, so short a vagina does not at all necessitate prolapsus, though it may well be regarded as a predisposing cause. The uterus may also descend to any extent into the vagina, until it is at last completely extruded through the ostium externum, and the vagina is completely inverted.

Three degrees of prolapsus will, for practical purposes, be recognized. In the

First—the cervix uteri falls only so as to rest on the posterior wall of the vagina; *i. e.*, through the upper third or less of the vagina.

Second Degree—the cervix uteri rests on the internal surface of the perineum, or descends to the ostium externum.

Third Degree—the uterus is entirely extruded, and the vagina is, consequently, completely inverted.

Various terms have been applied to these degrees of prolapsus, and the following arrangement may prevent confusion:

First Degree.—Incipient prolapsus, (Churchill;) delapsion, (Davis;) relaxation.

Second Degree.—Procidentia, (Churchill;) prolapsion, (Davis;) semi-prolapse, (Boivin;) delapsus, (Kulm.)

Third Degree.—Complete prolapse, (Churchill;) procidentia, (Davis.) Nanche and some other French writers include the first two degrees of prolapsus under the term “relachement,” while the third or complete prolapse is called “descente.”

The relations just specified of the parts in complete prolapsus are shown by the following cut, which is somewhat improved from Churchill's work on the Diseases of Women.

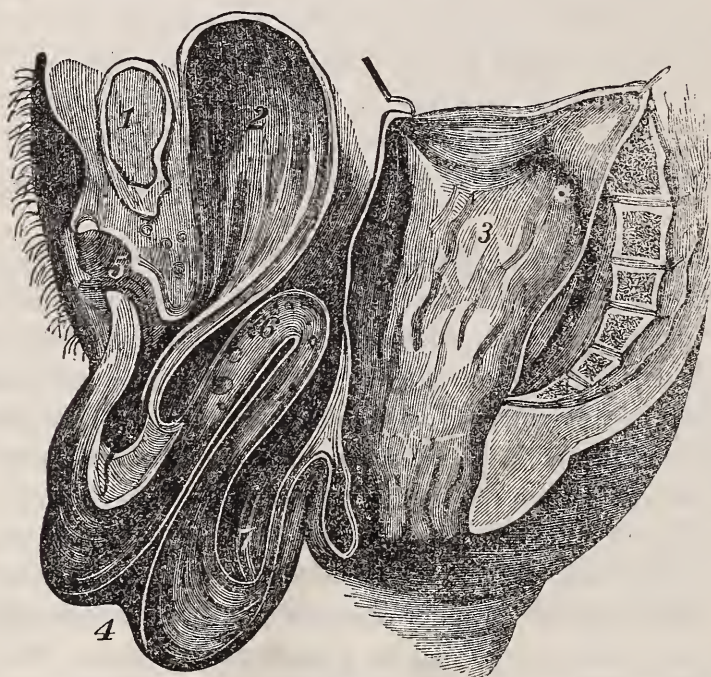


FIG. 3.

Right half of the bisected pelvis in case of complete prolapsus. 1, symphysis pubis; 2, fundus of the bladder, the base being drawn down to form part of the external tumor; 3, rectum; 4, os uteri; 5, urethra, much dilated, and showing the direction the catheter must take; 6, fundus uteri; 7, cavity behind the body of the uterus, usually containing convolutions of the intestines, as does also the cavity seen in front between the uterus and the bladder. The anterior wall of the rectum also sometimes falls down into the cavity, 7.

Evidently, the uterus cannot descend through the curve of the vagina without continually changing the inclination of its long diameter to the superior plane of the pelvis. The cervix must come farther and

farther forward as it descends, and the fundus uteri fall proportionally backward; and thus a degree of retroversion necessarily attends on the first and second degrees of prolapsus. Some maintain that this movement of the fundus backward necessarily implies an elongation of the round ligaments; and therefore, that relaxation of these ligaments is indispensable to, if not the main cause of, prolapsus. Since, however, the cervix comes forward in proportion as the fundus inclines backward, no essential elongation of the round ligaments is necessitated, it would seem, till the third degree is reached, when they become stretched by the weight which is brought to bear upon them. Their relaxation and elongation is, therefore, quite as often an effect as a cause of prolapsus. A previous elongation would doubtless predispose to prolapsus, but far more to retroversion or retroflexion.

In the third stage of prolapsus, the entire uterus being extruded through the vulva, the vagina, being completely inverted, will be seen extending *upward* from the cervix uteri to the vulva, and inclosing a conical mass, which consists of the uterus, a part of the bladder and of the rectum, and generally also of some convolutions of intestines. The abnormal position of the bladder often leads to retention of urine; and to relieve it a male catheter must be used, with its convexity presenting downward.

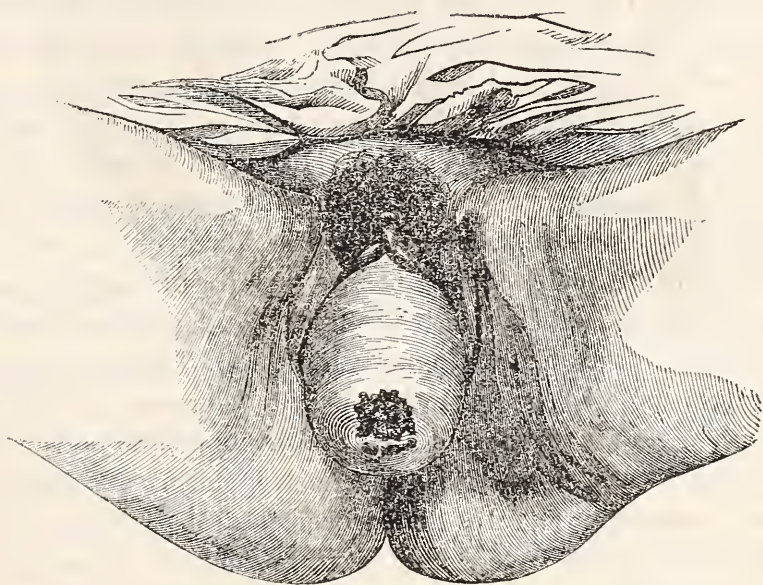


FIG. 4.

Extensive ulceration above and in front of the os uteri, in a case of complete prolapsus.

In the third degree of prolapsus, ulcerations also very frequently occur from the contact of the clothing, on the lower portion of the

extruded mass; and sometimes the prolapsus is irreducible. Fig. 4 gives a very good idea of the case of the Mexican woman whom you will recollect as having recently come before you. It also shows the ordinary form and relative size of the mass extruded.

The *causes* of prolapsus are quite numerous. Some would render this a very simple matter by referring prolapsus to a relaxed state of the vagina as its principal cause. This state of the vagina does not, however, induce prolapsus, if the agency of the other natural supports of the uterus is still unimpaired. I must refer you to the account of these supports given in my first lecture, and also give some account of the relations of the levator ani muscle, before we can arrive at an explicit understanding of this subject.

The *direct* supports of the uterus are the broad, the round, and the utero-rectal ligaments; to which add the posterior wall of the bladder, and the vagina also, provided it maintains its own tone and normal position. Its *indirect* supports are the rectum, the levator ani muscle, and the perineum; *i. e.*, if the direct supports fail, these latter may arrest, or even prevent displacement; and on the other hand, these failing to maintain their normal relations, such failure may predispose to, or even produce, displacements. It is mainly prolapsus which is produced by the failure of the indirect supports of the levator ani, and, therefore, I have deferred till now my remarks on this muscle.

The two levator ani muscles together constitute the whole contractile floor of the pelvis, and should together be regarded as a single muscle, as is the diaphragm. Thus considered, it presents a concavity upward, (or it is depressed like the bottom of a bowl,) while the rectum and vagina traverse it, (as the œsophagus passes through the diaphragm,) on the middle line. The fibres of the muscle are blended with those of the two canals as they pass through it, so that they are firmly connected with it at these points, and must be elevated or depressed with its contraction or relaxation. The quiescent condition of the muscle being that in which it is depressed in its central portions, (or is concave upwards,) it raises its middle portions more nearly to a horizontal position in the pelvis during its contraction, and thus necessarily elevates the two canals just mentioned. On the other hand, if it lose its tone, and becomes relaxed and more depressed in its central portion than usual, these canals must be drawn lower down than usual. Even the perineum at last becomes relaxed in such cases; a very common thing in the aged of both sexes, in whom it is seen, on an external examination, bulging downward. In these circumstances the antagonism between the diaphragm at the upper limit

of the abdomen, and the levator ani, at the lower, is destroyed; for while, normally, the levator reacted against the diaphragm, and returned to the latter, by its contractile force, the pressure received from the mass of abdominal contents from the contraction of the diaphragm, it has now lost its power of resistance, and the abdominal viscera are now crowded downward by the diaphragm upon the pelvic, and the latter upon the floor of the pelvis, without hindrance. It is, therefore, very easy to perceive how loss of power in the levator ani may predispose to, or may even produce, prolapsus uteri; and as rupture of the perineum presupposes a diminished force of this muscle, this condition also frequently results in this displacement. Therefore,

I. The *predisposing* causes of prolapsus (and these alone may frequently produce this displacement) are:

1. *Agencies which weaken the natural supports of the uterus*; and first of all, parturition and its consequent relaxation of the parts concerned; abortion; the process of menstruation; anæmia, and its resulting general debility. A short, straight vagina, and a relaxation of this canal from disease, may also be added under this head.

2. *Agencies increasing the weight or changing the direction of the uterus*. (1.) Dr. Bennett says, a heavy, swollen cervix may even produce prolapsus. Hence congestion or hypertrophy of the uterus itself; polypus uteri, fibrous tumors, scirrhus, and arrested involution after parturition. (2.) Pressure from extra-uterine tumors or enlarged contiguous organs, especially ascites, and ovarian diseases.

II. The *exciting* causes of prolapsus include several of the agencies already enunciated as predisposing causes. The general and local relaxation from uterine or other profuse hæmorrhages, menorrhagia, or prolonged and profuse leucorrhœa, may directly produce prolapsus; or any of the before-mentioned agencies predisposing thereto, a sudden effort, as in dancing, leaping, lifting, violent laughter, coughing, vomiting, or straining in defecation, may directly force the womb downward to a point, whence it does not again rise to its natural position. Certain occupations may, therefore, act as exciting causes, as that of market-women who carry heavy burdens.

This displacement will be concluded in the next lecture.

Lumbar Abscess. By JOHN S. WAGGONER, M.D., of Carlisle, Cumberland County, Pennsylvania.

It is not my object to enter into a detailed account of this disease, that is, of its pathological character, nor the peculiar constitutional diathesis which may predispose to its development, but rather to give a detailed account of one case as it occurred in the practice of my preceptor, Dr. S. B. Kieffer, of Carlisle, Pa., whilst a private student of his, involving the constitutional diathesis as it then occurred. The symptoms and the mode of treatment were, so far as I have been able to learn, somewhat peculiar, unique, and altogether successful.

Patient aged 23 years, a banker by profession, and consequently of very sedentary habits, presented himself at the office about the 1st of October, 1857. His general appearance was delicate, somewhat emaciated, and he was possessed of a lymphatic temperament, bordering somewhat on the nervous. Eyes blue, hair dark, flushed cheek, with a general pallor, denoting a vast deal of suffering, and a loss of appetite. Complained of constipation of bowels, general nervousness, want of sleep, and a severe pain in the right lumbar region; more particularly immediately about the transverse processes of the fourth and fifth lumbar vertebræ.

On examination, found considerable swelling in the part; pain increased on pressure. Patient complained also of occasional pain in the right scapula, extending sometimes into the arm and shoulder, and round in the region of the pectoralis muscle. No cough, however; no night-sweats, but sometimes paroxysms of febrile exacerbation, passing off with a feeling of extreme languor. He stated that he had a similar pain in the loins some six months previous; had been under treatment in Philadelphia for femoral abscess, which had been opened, the cicatrix not quite healed. There was also at this time a slight contraction of the anterior muscles of the leg, with some soreness, and a slight halt in locomotion. After careful examination, this case was pronounced lumbar abscess, and the opinion was entertained that from the history, as then given, the femoral abscess had had a similar origin.

The nature of the case having been fully stated, the ordinary local and constitutional remedies for abscess, with an asthenic condition of system, were prescribed, and steadily persevered with, until after a few days, very slight fluctuation was perceptible, immediately over the spine of the ilium, and quite near the vertebral column. Patient com-

plained also of slight chilliness, and the characteristic restlessness, or want of sleep. Without further delay, in order to guard against any intravasation of matter within the cavity of the pelvis, an operation was at once suggested, and an honest and frank statement made of the prognosis, which, at the time, was considered very unfavorable. The patient was directed to stand erect, and firm pressure was made over the abdomen, in the iliac region, inward and upward, whilst a curved edged bistoury was planted deep in through the lumbar muscles, to the depth of two and a half inches, as near the crest of the ilium as possible, and in such a manner as to form a slight curve; first in the direction of the opposite acetabulum, and then, with a sweep, bringing the edge of the knife upward, thus laying the tissues open freely in the centre of the tumefaction, and leaving but a small opening in the integuments. This was afterwards filled with lint, and secured by means of adhesive plaster. After the withdrawal of the knife, a small quantity of fluid, about half a fluid ounce, of a peculiar watery character, containing small floculi of a dark-colored matter, resembling partially disintegrated blood, and small quantities of a peculiar cheesy or granulated scorbutic mass, flowed from the wound. Immediately after the operation, slight constitutional disturbances came on, attended with increased prostration; afterwards followed by a reaction, attended with considerable febrile excitement, with a rapid, though thread-like, pulse. Patient was put upon a mild though generous diet, and the following mixture:

R.—Brandy,	f. ℥ijss.
Tr. verat. vir.,	f 3ss.
Spr. æt. nit.,	f. ʒi.
M. S.—A tea-spoonful every hour;	

whilst the abscess was treated locally by means of iodine applied to the surface, and the constant application of stimulating fomentations and poultices. This course was continued from twenty-four to thirty-six hours, with slight variations, as the symptoms indicated. Pressure was occasionally made, as before intimated, firmly, though gently, over the abdomen in the iliac region, invariably attended with a discharge of the same peculiar fluid, which increased very much in quantity after the first eighteen hours. The character of the discharge now became more bloody, and at the expiration of about forty-eight hours the most violent constitutional symptoms began to manifest themselves, attended with extreme prostration, great chilliness, and tumefaction of the affected part, followed in a few hours with a febrile reaction again; violent jactitation of all the muscles of the

body; extreme restlessness, and want of sleep; appetite entirely gone; discharge from the bowels, induced by means of mild enemata, and the discharge from the kidneys scant, and highly colored.

Fomentations were still continued, and pressure was applied occasionally, as before. Patient was ordered brandy and egg, with a little sweet cream; and, as an anodyne diaphoretic and tonic mixture, was ordered to have the following:

R.—Morphia sulphas,	gr. iij.
Strychniæ,	gr. iss.
Camph.,	gr. v.
Ipecac.,	gr. ij.
M. f.—Pil. No. 20.	S. one every two hours.

The limb was now very much contracted, so that it could not be straightened without intense suffering. The redness and swelling in the lumbar region were very much increased, and a return of decided chilliness indicated a speedy degeneration of the tissues into pus. The same treatment still continued, with the addition of brandy; and the original design of extracting the pus from the abscess, over the brim of the pelvis, by means of an exhausting syringe, was fully adopted. Accordingly, a glass syringe of about two ounces capacity, with a nozzle fine, but two and a half inches long, was introduced into the cavity of the abscess, which was easily accomplished, owing to the nature of the cut originally made through the tissues. By this means at least five ounces of granulated, still unhealthy matter, were extracted from the abscess. Iodine and poultices continued locally, and the violent symptoms of jactitation and pain having in a great measure subsided, patient was ordered fifteen drops of the tr. ferri chloridi in brandy and water, every six hours, and the occasional use of good wine and brandy, as the case seemed to require. With this treatment and the frequent use of the exhausting syringe, (at least twice a day,) always having an assistant to make pressure over the ilium, as before intimated, during the operation, the symptoms gradually improved; patient became more comfortable, and the character of the pus more healthy; and after two or three days the pus became very copious, and altogether laudable. From two to three ounces of matter were now extracted regularly, twice a day, for several days. No change in treatment. The discharge of healthy matter having been well established, to stimulate healthy granulations was now considered very important, and accordingly the following course was adopted and steadily persevered with. Surface over the dorsum of the ilium, the lumbar vertebra, and upward to the extent of six inches square,

was regularly painted with the tincture of iodine twice a day, freely enough just to keep up a constant desquamation. Stimulating poultices of oat-meal, yeast, brandy, and pulverized elm bark were continually applied. Patient was ordered syr. ferri iodide, fifteen drops in brandy and water, three times a day, with the free use of ale, porter, and brandy, together with a good, nutritious diet. Appetite gradually improved. In connection with above, the matter was still regularly exhausted to the amount of from half an ounce to an ounce per diem; and the abscess was now also regularly washed out by means of a solution, as follows:

R — Aqua calcis,	f. ℥iv.
Tr. iodini,	f. ℥ij. M.

Inject into the cavity, and again extract after each operation for extracting the matter. It may be well to state, that it mattered not what position the patient might assume, there was in no case, after the abscess had been fully developed, any spontaneous discharge of matter, except occasionally, perhaps, a few drops. With this local and constitutional treatment, patient (now almost eight days after the operation) began to improve rapidly; pain and swelling subsided gradually; the cavity filled rapidly by granulations, whilst the orifice was kept open by means of lint, just large enough to receive the instrument.

The limb gradually returned to its normal position, whilst the femoral abscess, which had not been quite healed, now closed. Appetite and strength improved rapidly; the spirits, which had been much depressed, revived and became buoyant, and the general health was thus, after a period of about three weeks from the operation, sufficiently restored to enable him to start upon a journey, from which he returned again after a fortnight, apparently convalescent. The application of iodine was continued, however, for several months, when the tenderness over the lumbar vertebra also subsided. Since then, although more than two years have now elapsed, there have been no symptoms of a return of the disease.

On the Resuscitation of Infants Born Still. By WILLIAM C. ROGERS, M.D., Green Island, Albany County, N. Y. Second Article.

In the writings of standard obstetricians, and in the periodical literature of the profession, I have found, up to the publication of my first article, no analysis of the various conditions of the still neonatus, and I accordingly sought to supply this want. I accumulated my material,

published my first article, and was reading and reflecting for my second, when Dr. T. Gaillard Thomas, of New York, kindly sent me a copy of his valuable "Lecture on Suspended Fœtal Animation," in which he throws the clear light of science upon the still neonatus, and thereby increases the resources of our art in the management of these important and trying cases. As he has thus anticipated me in my labor, I shall make free use of the materials he has placed in my hands, hereby acknowledging my indebtedness to him, and shall add thereto that which my reading, reflection, and experience have led me to consider pertinent and valuable.

1. *Of the Conditions of the Still-Born Child.*—The neonatus may suffer from—*a*, Asphyxia; *b*, Syncope; *c*, Cerebral Congestion; and from, *d*, Apoplexy. (Thomas.)

a. OF ASPHYXIA.

Asphyxia is a suspension of the function of respiration, independent of the motions of the heart, or of the circulation of the blood. In *asphyxia neonatorum*, placental respiration is either imperfectly performed or has entirely ceased, while pulmonary respiration has not been established. As a consequence, the blood becomes rapidly surcharged with carbonic acid and the detritus of the fœtal system, and is propelled to the lungs. Here the normal reactions between the blood and its surroundings cannot take place, because of the absence of atmospheric air from within the pulmonary vesicles, and the abnormal condition of that fluid within the pulmonary capillaries; and hence arises accumulation of blood within the venous, and diminution of blood within the arterial system, with congestion of the lungs, and of the right side of the heart. The carbonized blood, circulating in the brain and nervous centres, feebly stimulates or utterly paralyzes them; no nerve-force is evolved, respiration is not established, and we may have for a season active motion of the heart, and circulation of venous blood without coincident respiration.

Such is, in brief, the physiology and pathology of asphyxia. Its causes may be dependent upon, 1st, the condition of the mother; 2d, upon the condition of the uterus and placenta; 3d, upon the condition of the cord; and 4th, upon the condition of the child.

1st. *Causes Dependent on the Condition of the Mother.* The principal of these is *maternal toxæmia*.

The maternal blood, passing from the uterine into the placental sinuses, washes the vast mass of fœtal tufts of which the placenta is formed, and by the processes of endosmose and exosmose, of exhalation

and absorption, absorbs carbonic acid and the detritus of the foetal system from, and imparts oxygen to, the blood of the foetus. The placental circulation is thus virtually respiration, analogous in all essential respects to the bronchial respiration of the fish; since the maternal blood, containing oxygen, in washing the foetal tufts of the placenta, performs the same functions for the child that the water containing atmospheric air, and washing the blood-vessels of the bronchiæ, performs for the fish. And it is evident that the analogy may be traced still further. If the water in which the fish is respiring is not renewed, its oxygen is soon exhausted, and the fish dies asphyxiated; and in like manner, if the maternal blood be not depurated, or if it be not renewed from any cause, asphyxia and impending death is the result. When the mother's blood is not depurated we have maternal toxæmia or uræmia—a condition characterized by the presence in the blood of urea, or the carbonate of ammonia,* in abnormal quantities. This uræmic condition of the mother's blood gives rise to puerperal convulsions, which are even more fatal to the foetus than to the mother. Of 185 cases of puerperal convulsions cited by Churchill and his American editor, 47, or about *one-fourth*, were fatal to the mother; while Braun estimates the infant mortality in this disease at 45 per cent. Ramsbotham records 18 cases of puerperal convulsions occurring before delivery in 48,682 deliveries, the infant mortality of which was 12 in 18. Dewees records 8 cases in which 4 children were born living, 2 dead, and in the remaining 2 the mothers died undelivered. Collins records 30 cases in 16,654 deliveries, in 14 of which the children were born dead, 2 were putrid at birth, and 14 were born living. What proportion of these cases depended upon uræmia we have no means of knowing, nor have I anywhere seen an estimate of the probable proportion of cases of puerperal convulsions in the hundred depending upon this condition, but it is undoubtedly very great. The causes of the great foetal mortality in this fearful complication of labor are, 1st, circulation of carbonized blood through the placental sinuses, gener-

* A résumé of all that is known of uræmia is much needed. The whole subject is so little understood, the results of the experiments of Frerichs, Richardson, Hammond, and others, are so contradictory, and the nature of the disease so obscure, that we are scarcely warranted in affirming anything of it positively, beyond its mere phenomena. These are not sufficiently developed to admit of comprehensive generalization; and until such generalization is possible and satisfactory, we are not warranted in arguing from our present theories as though they were truths, comprehending and satisfying all the relations of all the phenomena.

ated by the arrested or imperfect respiration of the mother; 2d, absorption of urea and the carbonate of ammonia from the maternal into the foetal circulation; (?) and 3d, partial or complete closure of the uterine sinuses by the spasmodic action of the abdominal muscles.

Statistics would, without doubt, show a greatly diminished maternal and foetal mortality in uræmic convulsions since the use of chloroform in this disease, but whether or no this diminished mortality could be attributed to the effect of the chloroform in preventing the decomposition of urea into the carbonate of ammonia by producing a temporary diabetes, as Prof. Simpson supposes, must be regarded still as a very open question. Braun makes the following assertion: "If, after numerous uræmic convulsions, the child is born alive, a large quantity of urea is found in the blood taken from the umbilical cord; but if it is born dead, we can immediately after the birth demonstrate the presence of carbonate of ammonia in the foetal blood."

Tyler Smith says, "It is found that children born alive after (puerperal) convulsions are affected with uræmia or albuminuria, and that this condition lasts in some cases for a considerable time after birth. Sometimes children born alive under such circumstances have themselves died subsequently of uræmic convulsions." "A large proportion of the children in such cases are born dead." (*Obstet.*, Gardner's Edit., p. 623.)

An interesting case, illustrating the effects of a toxic condition of the mother's blood upon the foetus, is recorded by Dr. W. H. Thayer in the *Trans. N. H. Med. Soc.* for 1857, p. 94. Dr. Thayer was called in consultation in the case of a woman who had been in labor 38 hours; he administered ether, and delivered by the forceps. The child was born still, and resisted all efforts at resuscitation for ten minutes; the umbilical cord was then cut, and allowed to bleed a few jets before the ligature was applied; efforts at resuscitation were renewed, and in ten minutes more were successful, when "*the breech of the infant had a decided odor of ether.*" The mother returned to consciousness about the time the child was resuscitated, thirty minutes after the ether was discontinued. The mother was fully etherized at the time the umbilical cord was cut; the placental circulation was not suspended; the establishment of respiration followed shortly after the division of the cord, having been delayed "by embarrassment of the circulation due either to hyperæmia or the presence of ether in the blood."

2. *Causes Dependent upon the Condition of the Uterus and Placenta.*—These causes are, firm and abnormal contraction of the uterus, whereby the uterine and placental sinuses are closed; partial and

hour-glass contractions of the uterus, and partial or complete separation of the placenta.

Of the first of these, Dr. Thomas remarks: "After a labor has lasted many hours in the second stage, or after the administration of ergot at any period of the stage, the uterus not only exerts its contractile powers by alternate and intermitting contractions, but closing firmly, as it were spasmodically, upon the child, it enters into a constant and unintermitting contraction, the power of which they can testify to whose arms have been nearly paralyzed by the performance of the operation of version. Now, this firm and unnatural contraction of the organ presses the spongy mass, the placenta, firmly against the child's body, closes its pouches, in which the mother's blood flows over the foetal tufts, and obliterates the uterine sinuses through which that blood passes to the placenta. It is, in fact, only an exaggeration of that state which we produce by rupturing the bag of waters to check hæmorrhage in the first stage of labor; and exactly the same principle is developed that we employ when we bind a billiard-ball firmly in the palm of the hand to check hæmorrhage from the palmar arch."

Dewees devotes five pages to the consideration of "Partial Contractions of the Uterus," in which he shows that the os may contract firmly about the neck of the foetus during labor, thereby not only delaying the progress of labor, but imperiling the child by the induction of asphyxia. I have met with no cases on record where this latter result has been ascribed to this cause, but a moment's reflection will show us that it might very easily occur; and in cases where the labor seemed delayed from other than the ordinary causes, such as rigidity of the soft parts, insufficient pains, &c., a more careful examination might discover this condition of the organ. The same remarks will apply with equal force to hour-glass contractions of the uterus, whereby the body of the foetus is so pressed by the contracting segment of the organs, as to arrest circulation in the cord, to induce cerebral congestion, apoplexy, or fatal asphyxia. Records of cases of this kind I have found in my reading, but, having lost the references to them, I am unable to re-record them in this place. The following case of very recent occurrence is in point:

A professional friend of mine was recently called in consultation in a case of contracted pelvis, the child's head, though of the usual size, but of unusual firmness, being too large to admit of natural delivery. He rectified the position, and waited in vain for the natural efforts to complete the delivery. He then applied the forceps, but with no better success. He then performed craniotomy, and with the crochet

in the foramen magnum of the occiput endeavored in vain to deliver the mutilated fœtus. The hand introduced into the uterus revealed an hour-glass contraction of that organ, firmly embracing the child's abdomen, and effectually resisting all his exertions with the forceps and crochet. He gradually dilated the stricture, and effected the delivery.

The manner in which partial or complete separation of the placenta produces asphyxia neonati is evident, and needs but little elucidation at this time. In this condition of the placenta, whether it be entirely within the uterus, or partially or wholly over the os, the oxygenated maternal blood flows from the placenta without decarbonizing the fœtal blood, and asphyxia is the certain result.

3. *Causes Dependent upon the Condition of the Umbilical Cord.*—These causes are compression and rupture of the umbilical cord, and twisting of the cord about the child's neck. Compression may be produced by prolapse of the cord, or by interposition of the cord between the child's body and the contracting uterus. In prolapse of the cord the child's life is jeopardized by the compression of the cord between the presenting part of the child and the bony or soft parts of the mother; fortunately this complication of labor, so fraught with danger to the child, is not of frequent occurrence. I have gathered from the standard and periodical literature of the profession, and from my own personal friends and correspondents, a record of 88,342 presentations, of which number 285 were presentations of the cord: Ratio, 1 in 310. Of the fatality accompanying these 285 presentations of the funis, I had no means of ascertaining, as it was in but few instances recorded; but the following facts and figures, which I have accumulated from the sources indicated above, will throw light upon the question:

Whole number of cases collected,	234
Unassisted labor, children born living,	54
“ “ “ “ dead,	83
Version performed, and “ “ living,	14
“ “ “ “ dead,	36
Forceps cases, “ “ living,	13
“ “ “ “ dead,	6
Twin “ “ “ living,	18
“ “ “ “ dead,	10

Children born living, 99. Dead, 135. Total, 234

Ratio of the dead to the living about $2\frac{1}{3}$ to 1.

It is my intention to present these statistics in full to the profession as soon as present engagements will permit.

Of rupture of the umbilical cord as a cause of asphyxia neonatorum I have found many recorded cases, but, unfortunately, have mislaid my notes and references. The majority of these cases occurred in the earlier months of pregnancy; and those which occurred during the later months, when the child is considered viable, gave evidences of fatty or other degeneration of the cord and placenta, and were accompanied by the birth of illy-developed, and doubtless non-viable, children. The further consideration of this cause, then, promises but few useful results in this connection.

The twisting of the cord about the child's neck is a frequent cause of asphyxia. Nos. 16 and 22 of Article first are cases in point, and the experience of every practitioner will furnish many such.

4. *Causes Dependent upon the Condition of the Child.*—These may be a natural feebleness of constitution, incapacitating the child for the spontaneous muscular exertion necessary to establish respiration, or a similar incapacity produced by long-continued pressure upon the brain, (Collins,) and an accumulation of mucus or liquor amnii in the trachea, pharynx and mouth, so great and so tenacious as to resist the child's feeble efforts at respiration or dislodgment. The first cause is frequently active in premature children of the seventh and eighth month; the last to a greater or less extent in almost every child at birth.

Symptoms.—"The fauces of the asphyxiated child is eloquent in telling of the lesions; the face is dusky, the lips purple and pouting, the eyes glassy, and the limbs unyielding, and not flaccid, as in syncope. The heart may be felt beating feebly, or not at all; or its strokes may be intermittent, while there is not the slightest effort at respiration."—(Thomas.)

Prognosis.—The prognosis will depend, in a very great measure, upon the condition of the heart. If that organ continues to pulsate ever so feebly, our efforts to resuscitate *may* be successful, and should be continued as long as the heart is in action. This is illustrated by the cases adduced in the first article, twenty-four in number, in which the average period intervening between birth and the establishment of respiration was 35 minutes, 30 seconds. The seven exceptional cases adduced therein, in which respiration was not accomplished in periods ranging from 20 minutes to 7 hours, increase the average to 50 minutes of suspended foetal animation. Mr. Tompkins, a former student of Dr. Blundell, reported a case to that gentleman, of a child recovered under the use of resuscitants, continued for a period of one hour and

five minutes before obvious signs of life appeared.—(Blundell, p. 117.) The prognosis, then, may be regarded as favorable as long as the heart is in action; unfavorable the instant that organ ceases to beat.

Treatment.—The indication in the treatment of asphyxia is to excite the function of respiration, by which means the normal relations existing between the pulmonary capillaries and their contained blood may be restored, or rather established. The blood yields up its carbonic acid to, and absorbs oxygen from, the air; pulmonary circulation begins, and pulmonary congestion diminishes, *pari passu*; the general circulation is re-established, nervous force is elicited from the centres, and the infant begins its independent life. The great desideratum, then, is respiration. How shall it be established?

The experiments of many observers seem to prove that the liquor amnii penetrates during intra-uterine life as far as the bronchiæ, (Velpéan.) Hence the necessity of cleansing the trachea, pharynx, and mouth, by placing the child's mouth downward, with the body and hips higher than the head, and by gentle shakes disengaging the contained fluid, or by the finger, previously protected by a soft rag, introduced well into the pharynx. This is to be premised when necessary, no matter what the condition of the child, or what means are to be used for its resuscitation. The minor remedies for asphyxia are now to be tried, such as frictions, blows upon the nates, back and thorax, irritation of the nares and throat, exposure to draughts of cold air, and like measures, calculated to awaken nervous energy and excite reflex actions. These, in the majority of instances, are sufficient; but should they fail, recourse must be had to artificial respiration, which may be executed by the mouth-to-mouth process, by the tracheal pipe, by manipulations of the chest, or by the Ready Method of Marshall Hall.

In the mouth-to-mouth process, the accoucheur's mouth is to be placed to the child's mouth, the nares are to be closed, and gentle pressure made upon the larynx, so as to close the œsophagus by pressing it against the cervical vertebræ, that no air may enter the stomach; and then the child's lungs are to be gently, but forcibly, inflated, and allowed to empty themselves by their own elasticity, or by gentle pressure upon the thorax and abdomen.

The tracheal pipe is to be introduced along the index-finger of the left hand, previously inserted into the rima, and used as a director. Examination in front of the neck will show whether the tube be in the trachea or not. If in, the infant's lungs are to be slowly, gently, and yet forcibly inflated, and emptied, as in the process above stated.

There should be from 20 to 30 respirations a minute, corresponding in number to the respirations of the quick neonatus. Dewees used this means of exciting respiration for nearly forty years, with almost uniform success. Velpeau recommends the use of a quill-barrel, a female catheter, any kind of canula, or a simple gum-elastic catheter. In the first article will be found four successful cases of its use reported by J. Toogood, Esq. Next to the Ready Method, this is unquestionably the most valuable means at our disposal for the restoration of suspended foetal animation.

Another process is the alternate elevation and depression of the thorax by the fingers inserted well under the edge of the ribs. Dr. Pitcher, of Hudson, informs me that he has used this process to the exclusion of all others for many years, and with such a measure of success that he is not inclined to abandon it for any other. It commends itself for its simplicity and the ease with which it may be executed.

It now remains to consider the Ready Method of Marshall Hall, which, since its first successful adoption, in February, 1857, has practically superseded all others. The method itself I need not describe. It is only necessary to clear the trachea and pharynx, draw the tongue well forward, and rotate the child, *s. a.* from 20 to 30 times in the minute. Of all the methods which I have used, this is by far the most successful. A half dozen rotations will suffice in ordinary cases to remove profound asphyxia. Eleven of the 24 cases recorded in article first were restored by this method, after an average duration of suspended animation of 27 minutes. In the course of my reading, I have found but one practitioner who prefers the mouth-to-mouth process to the Ready Method, and that is Dr. A. T. Keyt, of Cincinnati, who, in the *Lancet and Observer*, for January, 1860, presents the following in substance: The still neonatus has never respired; its air-vesicles have never been opened; its chest has never been expanded; its chest and lungs are, then, devoid of elasticity; and its condition is not justly analogous to that of the asphyxiated adult. The capacity of its chest could be but little, if any, diminished or increased by the rotation process. He therefore prefers the mouth-to-mouth process, and reports cases of comparative trial. In one he says: "At least an hour elapsed before the child gave a gasp, and two hours before it could be left to do its own breathing. My dependence was upon the *mouth-to-mouth* process; by it I found no difficulty in controlling the circulation. It seemed as though the heart's action might have been thus maintained indefinitely. The 'Marshall Hall Method' was tried, but the results were negative; under it pallor and lividity would return to the sur-

face, and the circulation grow gradually more and more feeble, until the heart's action would plainly have soon ceased, had it not been timely aroused by a more *ready* and *efficient* method. Several times did I alternate the new method with the old, and just as often did I witness the same striking contrast of phenomena." (Quoted from AMERICAN MEDICAL MONTHLY, March, 1860, p. 200.) This is a very interesting experience, and commends itself to the profession. Its lesson is, rely not too exclusively upon any *one* method of resuscitation, but be completely armed by being practically familiar with all. But, while Dr. Keyt's theoretical argument against the Ready Method is well grounded so far as his cases and experience go, it is not equally well grounded upon the cases and experience of others. This is evident from the eleven cases adduced in my first article, and from experiments first made by Mr. Hall himself, and afterwards repeated by Dr. Thomas before his class and detailed in his lecture, so frequently referred to. The mouth and one nostril of a still-born fœtus were closed securely by adhesive plaster, and in the other nostril a caontchouc tube was inserted, having a bent glass tube containing water attached to its outer end. Pronation and rotation were then performed, according to M. Hall's directions, when bubbles of air would rush through the water to and from the lungs.

Here is a demonstration of the fact, that in *some* instances at least the still neonatus may be made to breathe, though *theoretically* its chest and lungs are devoid of the elasticity so requisite for the performance of this method. In my opinion, Dr. Keyt errs in condemning the Ready Method too emphatically in such cases, while Dr. Thomas errs in asserting too confidently that this is the *only* method by which artificial respiration can be effected. While I regard this method as by far the best and most philosophical yet devised, (since it introduces pure air into the child's lungs, and not the carbonized air of the accoucheur's lungs,) I prize the other methods adduced above as valuable beyond all price, and not to be discarded on any considerations. In this, as in other matters, professional and extra-professional, *in medio tutissimus ibis*.

I have said nothing as yet of the warm and cold baths so generally recommended and used in the resuscitation of infants born still. A reference to the nature of asphyxia shows that it is of the utmost importance to know which to use, the warm or the cold bath, and which to discard. In this state we have congestion of the lungs, repletion of the venous, with partial emptiness of the arterial system, and a languid circulation of carbonized blood. By establishing artificial respiration we

induce the normal chemical changes in the blood, relieve the congestion of the lungs, replace the venous with arterial blood in the systemic circulation, and thus relieve the general venous congestion. But in conducting this process we must be careful to preserve the true relations existing between respiration and circulation. Should the circulation not increase *pari passu* with the respiration, we have a constant loss of temperature from within, and no alleviation of the symptoms. Our remedy in this state of affairs is the warm bath, whereby the cutaneous circulation is increased, and frictions with pressure upward, whereby the circulation is hastened. On the other hand, should the circulation be too rapid, inducing additional congestion of the lungs, and deepening the asphyxia, our remedy is the cold bath, whereby we constrict the cutaneous capillaries, retard the circulation, and diminish the pulmonary and cardiac congestion. We at the same time prevent the too rapid carbonization of the blood in the systemic circulation, thus partially arresting the generation of carbonic acid, which becomes a blood-poison when not eliminated by the respiratory process. Both the warm and the cold baths are also useful as stimulants to arouse the energies and excite the reflex actions of the nervous system.

If, however, we should not succeed by the process above given, we must have recourse to the cold bath. All animals bear a diminution of respiration in proportion to the diminished force and frequency of the circulation, and these latter phenomena are induced by cold, externally applied. Hibernating animals will scarcely drown at all, and warm-blooded animals drown much sooner in warm than in cold water. These facts, first announced by Dr. Haighton and Sir Anthony Carlisle, (*Blundell, op. cit.*, pp. 116, 117,) and afterwards confirmed by Milne-Edwards, Brown-Séquard and Marshall Hall, taken in connection with the experiments and conclusions of Legallois, given in the February number of this *Journal*, all have an important bearing upon this subject. They show that if we would preserve the viable asphyxiated neonatus, we must bear in mind the law of the correspondence between the circulation of the blood and the respiratory process, and must direct our efforts to the maintenance of respiration, whereby we decarbonize the blood, and control the circulation, by the warm and cold baths and frictions, into correspondence with the respiration which we execute.

The Treatment of Paralysis of Motion. By CHARLES F. TAYLOR, M.D.

IN the MEDICAL MONTHLY for November, 1858, in an article under the above title, I pointed out the method to be pursued in order to re-establish the control of the will over the muscles when this control has been suspended by any cause capable of interrupting the conducting power of the nervous tracts. I showed how, either by a process of exclusion—that is, by excluding from the conditions under which an effort is made, all tendency to movements other than the designated ones—the will could be most efficiently brought to bear on the paralyzed muscles; or by a process of concentration—that is, by causing such a position to be assumed, muscular effort will increase towards the paralyzed parts, accumulating, as it were, in these parts; and in either case, at the same time avoiding the expenditure of nervous or muscular power upon the non-affected parts, which are always most easily stimulated; and when allowed to act, (as in ordinary exercise,) absorb, as it were, the whole nervous force into themselves, and thus virtually rob the paralyzed muscles of their fair share of stimulus; and that by continuing thus, carefully to make every motion intended to be curative, following it up, day after day, the conducting power of the nerves and the contraction of the muscles, would be manifested, even where neither were perceptible at first; and that, ultimately, a large amount of the lost function might, in many cases, be regained, as illustrated by the cases presented. Subsequent experience has confirmed every position assumed in that article, and has also added some valuable ideas, which is the object of this brief paper to present. In order to make the point more clear, the following case is related:

In December, 1858, Master D. F., aged ten years, was brought to me from the country, with hemiplegia of the left side. Five years before, that is, when he was five years old, he was kicked by a horse, in the right fronto-parietal region, detaching a portion of the skull about two by three inches large, depressing and forcing it under the adjacent parts, and considerably lacerating the brain-substance. The shattered bone was removed with difficulty, and after twenty-four hours, when consciousness returned, he was found to be paralyzed in the left side. It was nearly a year before the wound had healed, during which time, according to the history of the case, a “fungus” (?) was removed from, and an abscess had formed on, the wound. At the end of a year he was well, except the paralysis, which remained nearly unaltered

till I saw him, but for the past year, was rather growing worse. He had no use of the left arm, could only move it imperfectly at the shoulder and elbow; walked with difficulty, and could not support more than one-fourth or one-fifth of the weight of the body on the left leg. There was imperfect development over the whole left side; the chest was sunken on that side, and the muscles soft and small.

After treatment of three months, (unhappily stopped, at that time, from an attack of gastritis,) there was a remarkable increase of strength, and of voluntary control over the muscles, so that he could stand on the left foot for fifteen minutes; could climb a ladder, using both hands; and there was evident increase of muscular development through the whole side.

Just one year from the time he commenced, namely, in December, 1859, he resumed his treatment at my office. The development which had begun the year before, had kept steadily on. The chest and shoulders were symmetrical, so that the wadding before placed on the left side of his coat to make the shoulders appear even, had to be entirely removed; and he was stronger throughout that side. But here comes the most interesting part, so far as treatment is concerned. I observed in his case what I have observed in many other cases, that while the muscles might be brought under the *control* of the will, while they would act correctly and strongly, they would not act *readily*. In this case, though the muscles of the left leg were strong and would move as wished, they would act only tardily.

He had muscular strength enough to walk without limping, yet he limped. When he stepped with that foot, there seemed to be an interval of time after the effort before the action. The leg would partially give way for a moment, under the weight of the body, before the muscles would contract so as to sustain him firmly upon it. And yet, when this contraction did take place, it was sufficiently powerful. Hence the conclusion, that in the physiology of muscular motion there is a difference between certainty and readiness of action.

It occurred to me, that as we can develop certainty of action by concentrating the will upon a part and *prolonging* this effort, we might secure rapidity of action by *sudden* efforts thus concentrated. I therefore adopted a system of movements involving sudden *explosions* (as it were) of effort upon the affected parts. This process was kept up for two months, with more than anticipated results. He gained nothing in strength or certainty of movement, but in readiness and rapidity of muscular action there was as much improvement as there had been

before in control of it. He can now walk with scarcely a perceptible difference in quality of movement in the two sides.

Muscular contraction follows immediately upon the effort, so that the settling down of the left side in walking, before so marked, is scarcely perceptible.

The principle of distinguishing between the different qualities of force and the peculiar kind of functional manifestation to be employed in order to secure it, has been applied in many other cases with uniformly favorable results. Another important matter in the treatment of paralysis is, to secure a good circulation of blood in the affected parts before attempting to reach voluntary motion in them. Innervation as well as muscular contraction take place only in the presence of arterial blood. Before the patient essays to move a paralyzed limb, especially at the beginning of treatment, the muscles should be stretched, (passively,) or made to act through position and reflex action, (as standing on a paralyzed leg, for instance, while held in position by assistants;) and one is often surprised to notice how readily the previously rigid muscles will move in obedience to a volition.

Out of over forty cases which I have treated during the last three years, more than three-fourths have shown marked improvement; but the most favorable of all have been those unfortunate cases of "withered limbs" in children, occurring from teething, (inanition,) fevers, falls, &c., when quite young.

In a subsequent communication I intend to relate a number of these cases, which, to me, exceed in interest all others combined; especially when we consider the effect of a cure on the child's future prospects in life.

29 Cooper Institute, New York.

MONTHLY SUMMARY OF MEDICAL JOURNALISM.

By O. C. GIBBS, M.D., Frewsbury, N. Y.

Dysentery.—In the *Lancet and Observer* for March, Prof. E. S. Cooper, of San Francisco, has an article upon the treatment of dysentery. He thinks very highly of ipecacuanha as a remedy in such cases. He gives emetic doses in the early stages, and small doses, with opium and acetate of lead, frequently repeated, in the more ad-

vanced stages: "say one-sixteenth of a grain of each, repeated every ten, fifteen, or twenty minutes." We have previously referred to the treatment of dysentery with large doses of ipecacuanha, which, so far as we know, was first proposed by E. S. Docker, Esq. Since we have learned the powers of Epsom salts, elixir vitriol, and morphine, in appropriate combination, over this disease, we have had no disposition to try anything new. Prof. Cooper makes one remark that is perhaps worthy of further consideration. He says, "I have found many cases in which ipecacuanha combined with extract of gentian, in the proportion of one-half grain of the former to one of the latter, every hour, acted almost like a charm in the advanced stages of protracted cases, where other remedies had only produced a palliation of the symptoms."

We must protest against the consideration of *dysentery and diarrhœa* together, as does Prof. Cooper, as though they were allied diseases, requiring identical, or, at least, similar treatment. Cathartics, of a certain character, are always appropriate in a pure case of dysentery, while they are only judicious in a few exceptional cases of diarrhœa—astringents are seldom, or never, called for in dysentery, while they are nearly always appropriate in diarrhœa. It is no uncommon error for careless practitioners to confound dysentery with diarrhœa, and treat with powerful astringents, with the hopes of lessening the frequent desire to go to stool. We consider this a very grave error, and allude to the subject here, because teachers of medicine, more than all others, should draw a well-defined pathological and therapeutic line between the two diseases referred to.

Raw Meat.—In the *Charleston Medical Journal and Review* for March, Dr. F. P. Leverett has an article upon *raw meat* as a remedial agent. During the last year considerable has been said of it as a remedy in the diarrhœa of children. Most that we have seen upon the subject has been abstracted from foreign journals. Dr. Leverett says that Dr. Casper Morris introduced the use of raw beef into the children's ward of the Philadelphia Hospital, in the fall of 1855, and that he professed to have learned its powers over chronic diarrhœa of children from Prof. Thomas, of Baltimore; Dr. Leverett details a few interesting cases, occurring in the hospital under the care of Dr. Morris. The raw beef was not confined to the cases of children, but was equally beneficial in obstinate cases of chronic diarrhœa of adults. Dr. Leverett says he has found the remedy of much benefit in some other diseases. "In one case of chronic dyspepsia, with great irritability of the stomach, it was retained when almost everything else

was rejected. In the latter stages of typhoid fever, it proved a valuable article of diet, as I should have mentioned that it had done at the Philadelphia Hospital."

Quinine in Uterine Hæmorrhages.—In the March number of the *Charleston Medical Journal and Review*, Dr. J. S. Rich, of Georgia, reports several cases of protracted uterine hæmorrhage of an alarming character, speedily relieved by the use of quinine, after the failure of all other known means. The following are his favorite methods of administration:

" R.—Sulph. quinine, 3j.
Sulph. ferri, 3j.
Mucil. gum Arabic, q. s. ut. ft.

Pillulæ, No. xxx.

R.—Sulph. quinine, 3j.
Sulph. ferri, 3j.
Gum terebinth, 3j.

M. ft. in mass. et. div. in pillulæ, No. xxx. S.—Two to be taken morning, noon, and night."

In the *Lancet and Observer* for March, one of the editors appends the following to an item taken from a former number of our *Summary*: "We recently attended a case of uterine hæmorrhage, in connection with Prof. Richardson, of this city, which assumed a regular intermittent type, and was cured by the free administration of quinine."

Elephantiasis.—In the *Charleston Medical Journal and Review*, Dr. T. L. Ogier, of Charleston, reports a case in which he ligated the femoral artery for the cure of elephantiasis of the leg and foot. The report was made about three months after the operation, at which time the result was quite satisfactory, the swelling having subsided. Dr. Ogier wisely says, that "at least a year must elapse before the disease can be said to be permanently eradicated." Prof. Carnochan has the honor of first proposing this operation. He has successfully operated four times. Prof. Erichsen, acting upon the suggestion of Prof. Carnochan, has once tied the anterior tibial artery in the middle of the leg, with results quite satisfactory.

Hepatic Abscess.—In the *New Orleans Medical News and Hospital Gazette* for March, Prof. Austin Flint has an article upon *suppurative inflammation of the liver*. Speaking of the escape of pus through the lungs, he says, "It is remarkable how little pulmonary inflammation is often excited under these circumstances. One would suppose, *à priori*, that pneumonia would be sure to be developed in the entire lung; and the fact that it does not, goes to show that the latter dis-

ease involves in its production, general, rather than local causes. Evacuation of an hepatic abscess through the lung appears to be a conservative mode. Recovery has been observed oftener when the pus is discharged in this direction than when the abscess points to the surface, and the perforation takes place through the integument. This, *à priori*, would certainly not be expected."

This opinion is contrary to the expressed opinion of most authorities; Drs. Budd, Copland, Watson, and such others with whose views upon this point we happen to be acquainted, think that the superficial discharge of pus is the most favorable way that the pus can make its escape. It is, however, proper to note here that Dr. John Jackson, in the October number of the American edition of the *London Lancet*, advocates opinions in accordance with those above quoted from Dr. Flint.

Hydrocephalus.—In the March number of the *New Orleans Medical News and Hospital Gazette*, Dr. Marsh, of Port Hudson, reports a very interesting case of hydrocephalus, in which *paracentesis capitis* was several times performed. At the time of the first operation the patient was about *nine* months old. "Its body and extremities were emaciated beyond the power of pen to describe. It seemed as though there were nothing but integuments, blood-vessels, and bones left. At the same time, it had the *face* of an infant and the head of a man." The head measured 26 inches in its longest diameter. At the first operation "eleven ounces of fluid were drawn off, clear and pellucid at first, and of a slightly saline taste, like perspiration, but turbid at last." Sixteen days later the second operation was performed, and *sixty-four* ounces were evacuated, "with a very strong smell of urine." Eleven days later, sixteen ounces of fluid were withdrawn, and three days later the patient died. Dr. Marsh says, "It may be proper here to observe, that at no time after an operation could the bones of the head be compressed so as not to leave a cavity between them and the brain. As the water again accumulated, it could be distinctly heard surging from one side to another, as the child was moved."

Hæmaturia.—In the *Medical and Surgical Reporter* for March 3d, Dr. E. T. Blackwell reports a case of hæmaturia, which full doses of gallic acid, opium, &c., failed to relieve. He says, "Finding the remedies entirely fail, I ordered the bladder to be injected with a weak solution of alum, at first tepid, afterwards entirely cold. The effect was happy and rapid."

Scarlatina.—In the *Medical and Surgical Reporter* for March 3d, Dr. Gebhard has a paper upon the treatment of scarlet fever, in which he speaks very highly of *digitalis* as a remedy. He reports quite a

number of illustrative cases, in which the reported results are certainly quite satisfactory. For the last five years, during which he has used this remedy, he says he has lost but one case, and in that the remedy was brought to bear quite too late; "since that," he says, "as soon as any symptom indicated that the disease was scarlatina, or even a supposition to that effect, I have commenced the use of digitalis with a favorable result in every instance, as the cases related have fully confirmed." His method of administration was usually the following: for a patient from 4 to 6 years old, I ordered 40 grains of digitalis in 40 tea-spoonful of hot water, and when cool, to take one tea-spoonful every hour, to be continued until the entire abatement of all the symptoms."

Gelseminum.—In the *Journal of Materia Medica* for March, Dr. A. F. Patte has an article upon the properties and uses of gelseminum. We quote only the following: "*Headache* of the nervous kind may often be relieved, and I have found no one medicine so useful in this troublesome disease. *Neuralgia*, in its various forms, may be treated with this remedy, both internally and externally, with the hope of benefit. In *coryza*, or cold in the head, this is one of the best remedies I have ever used; it cures the severest cases in from twelve to forty-eight hours."

Indian Corn an Anti-Periodic.—In the *Nashville Journal of Medicine and Surgery* Dr. J. W. Gambling, of Kentucky, has an article upon the use of corn-meal as a substitute for quinine. He says he has administered the corn-meal in intermittent fever "to thirty patients, with satisfactory results. It prevented the paroxysms in all but two cases, and I attributed the failure to the inferior quality of the article used." He says further, "I can state with certainty that corn-meal is an anti-periodic, and as near a specific in intermittents as quinia." We do not remember of having seen the corn-meal recommended as a medicinal agent of power, previous to seeing an extract from a letter from Dr. D. B. Phillips, of the United States Navy, which was published in the *N. A. Medico-Chirurgical Review* for Sept., 1858. He there recommended it highly in facial neuralgia. In the *American Journal of Medical Sciences* for October, 1858, he reports a case of intermittent fever, cured with the same agent. Our readers will remember that, in a former number of our *Summary*, we gave Dr. Nagle's views in regard to the pathology and treatment of *milk sickness*. For this disease he says, "that corn-meal is an anti-periodic and specific." Bearing upon the subject under consideration, we quote the following passage from Prof. G. S. Blackie's Introductory Lecture,

published in the *Nashville Journal of Medicine and Surgery* for January of this year. "The specific for European chills has yet to be found. That for American chills is here. Our American *maize* cures our native chills, and where those chills are most abundant there most abundantly it grows." We have to regret that Prof. Blackie did not say more of this agent, of which he speaks so confidently.

Opium an Antidote to Belladonna.—Within the last few years considerable has been said in regard to the reciprocal antidotal powers of opium and belladonna. In the *N. A. Medico-Chirurgical Review* for March, Dr. A. Lopez reports a case of poisoning with belladonna, in which opium was successfully resorted to as a remedy. He says, "I was induced to test the reciprocal influential relation between the two poisons, and prescribed forthwith tinct. opii. f. ʒj. aq. cinnamon. ʒj. at one dose, with directions to repeat gtts. xv. every half hour, until a decided abatement of the pathological symptoms. The first dose antagonized the belladonna in less than thirty minutes after it was taken."

Anæsthesia during Sleep.—In the *Peninsular and Independent* for February, Dr. J. H. Beech has an article upon the above subject. At a meeting of the Buffalo Medical Association, several months ago, the possibility of chloroforming a person to insensibility during sleep was under discussion. It was the opinion of most of the members present that it was impossible thus to anæsthetize, without awaking the sleeper. Dr. Beech opposes this view, reports one case in illustration, and says he has succeeded in several other cases. He held a sponge as close to the nose and mouth as possible without touching, during inspiration, turned it aside when each expiration began." Complete anæsthesia was speedily induced. Dr. Beech says, "Persons sleeping will be sooner awakened by any article which resists the current of expiration, or turns it upon the face, than by offensive odors inhaled." The subject is one of interest, because of its medico-legal bearings.

Wounds of the Scalp.—In the *Southern Medical and Surgical Journal* for March, Prof. H. S. Campbell has a few remarks upon the dressing of wounds of the scalp. He proposes to avoid shaving the head, and also sutures. The plan which he advises, and has adopted, is that of "tying the strands of hair across the line of the wound, using them in the manner of sutures to effect approximation and retention of the edges." If the knot is disposed to slip, he says, "little *clamps of split shot* may be applied upon the strands of hair from the opposite sides." It appears to us that this plan is not new; yet Prof. Campbell says, he has "seen no record of it in recent works on surgery."

Tonic for Dyspepsia.—The *Louisville Medical News* for February gives the following for dyspeptic cases:

“R.—Tinct., cinchon.

“ quassia, ää. f. ʒij.

“ nux vomica, f. ʒj. M.

A tea-spoonful three times a day in a wine-glassful of sweetened water. This is one of the best combinations of its kind; it is much prescribed by Dr. E. Wilson.”

Belladonna as an Antigallactic.—In the *Medical and Surgical Reporter* for March 10th, Dr. John Flynn has an article upon the above subject. He says he has put the remedy to a rigid test, and entirely without benefit. In six cases, the most favorable for insuring a fair trial, he has “found it utterly worse than useless.” This seems a little strange to us, for there is no remedy in any disease that has given us such gratifying results. We have previously given our experience in former numbers of our *Summary*. As our experience with this article is constantly accumulating, we still add such as has occurred to us since writing our last *Summary*. About two weeks since, we attended a primipara having a contracted pelvis. We attempted to deliver with forceps, but failing in this, we were compelled to resort to craniotomy. The following day we commenced the use of fluid extract of belladonna, locally applied to the breasts. The patient made a good recovery; no breast-pump was used, no nursing performed, and yet the breasts did not inflame. About ten days since we attended another primipara, in which the labor was easy and soon over, yet the child was still-born. On the following day we directed the fluid extract of belladonna to be applied to the breasts twice, daily, and oftener should symptoms of inflammation supervene. For a few days there was a small secretion of milk, which was drawn, but now the breasts are flaccid, having shown no evidences of inflammation. Every physician knows that it is in just such cases as these that mammary abscesses occur.

Since we commenced using the belladonna, perhaps three years since, we have not seen a case of mammary abscess, except in cases where mammary inflammation had been permitted to progress to near or quite the stage of suppuration, before we were called upon to advise in the cases. We certainly regard the belladonna as one of the greatest boons intrusted to us for the relief of that unfortunate class of females, who, after undergoing the pains of maternity, are compelled from any cause to forego the pleasures of nursing. It is proper to observe, that in the cases just referred to, we administered at the time

the iodide of potassium, internally. How much effect the latter remedy may have had in securing the desired result, we do not know; certain are we that the combination of influences is apparently all that heart could wish in such cases. The preparation of belladonna used was Tilden & Co.'s fluid extract.

Extra Uterine Pregnancy.—In the *Chicago Medical Journal* for March, Dr. C. Goodbrake reports a very interesting case of extra uterine pregnancy. The patient had previously borne nine children. In the spring of 1856, she supposed herself pregnant for the tenth time. At the fifth month, foetal movements were quite distinct. In December of the same year, pains occurring, her physician was summoned, and though pains continued for several hours, no child was born. Three weeks later, the physician was again called, with result as before. She continued to carry the child until the fall of 1859. Many physicians were consulted, and many opinions given, but no relief or quietude of mind obtained. On the 24th of October last, Dr. Goodbrake performed gastrotomy. The child was found enveloped in a sac of its own. "The sac was found firmly adherent in the right iliac fossa, and to a considerable extent, to the parietal peritoneum on the right side. There were no adhesions anteriorly, nor to the intestines, which were all crowded to the left side." The child was of the female sex, of medium size, as at full period, and presented no evidences of decomposition. It was removed, but the patient died on the fifth day after the operation.

Variola and Vaccina.—In the *Boston Med. and Surg. Journal*, for March 15th, Dr. Ephraim Cutter has an interesting article upon the above subjects. It has been the prevailing opinion of the profession, that the vaccine disease was small-pox, modified and mitigated by its transmission through the cow. The experiments of Dr. Cutter seem to negative this opinion. He and his associate in experiment, Dr. Alonzo Chapin, have repeatedly *inoculated* the cow with variolous poison, by various methods, and entirely without effect. They have *vaccinated* the cow with the effect of developing the characteristic pustule. Dr. Cutter concludes, that cow-pox *is not* modified small-pox, but that they are distinct diseases. If the Dr's opinions should prove to be correct, we hope we shall hear no more about the gradual decade of the protective power of the vaccine disease, because of its successive transmissions through the human system.

Dr. Cutter does not claim originality in these views, for he says, "Dr. Von Bibra distinctly says, that the cow-pox and the small-pox are two different diseases."

Podophyllin and Leptandrin.—In the *Cleveland Medical Gazette* for March, Prof. J. P. Kirtland has an article upon the properties and uses of the above-mentioned agents. He believes that mercurials are quite too frequently and indiscriminately used, and that a combination of podophyllin and leptandrin may often be substituted for that agent with benefit.

Though the Professor's article will give aid and comfort to that class of quacks who glory in the cognomen of *eclectic*, yet his experience is none the less worthy of regard. His reputation for accuracy of observation will entitle his statement to confidence and respect. The indications for the use of the compound under consideration are the same as for the mercurials. Dr. Kirtland says, "My usual prescription for a laxative and aperient, as an equivalent for one or two grains of calomel, or five grains of blue mass, is the following:

R.—Podophyllin,
Leptandrin, ää, x grs.

Mix thoroughly, and divide into xl powders. Dose, one powder at bedtime; repeat, as occasion may require. Ale, coffee, or Catawba wine forms a convenient and palatable vehicle.

Uterine Hæmorrhage.—In the *Cleveland Medical Gazette* for March, Dr. Barth. Weber, of Cincinnati, has an article upon a new and sure method of arresting uterine hæmorrhage. The method consists in *compressing the arteria aorta descendens*. "In order to perform this small operation, the patient is to be placed on the back, the pelvis somewhat raised, and the thighs drawn up towards the abdomen, so that the abdominal wall gets relaxed; then you search with stretched hand for the fundus uteri, which, generally, you will find near the navel; push forward with the fore and middle finger, immediately above the fundus uteri, in a perpendicular direction, and at the same time try to push the intestines upward, which, generally, is easily accomplished. In this manner, you reach the spinal column, and feel plainly the pulsation of the abdominal artery. Now, you press with fore and middle finger perpendicularly, upon the artery, the hand forming almost a right angle with the spinal column." In this way, Dr. Weber says the artery can be compressed at pleasure. "This compression is to be continued as long as there is any danger to life from hæmorrhage, often for hours."

Prolapsus of the Funis.—In the *Louisville Medical Journal*, for March, Dr S. Branders has an article on the treatment of prolapsus of the funis. He reports *three* cases successfully treated by position. He places the patient upon her breast and knees, introduces his hand

into the vagina or uterus, returns the cord, and retains his hand in position until the head is ready to occupy the entire pelvic strait. He ascribes success mainly to the position. Dr. Branders ascribes the original suggestion to Dr. Thomas, of New York. We are aware that Dr. T. G. Thomas read a paper upon this subject before the New York Academy of Medicine, very early in the year 1858. We also know that Prof. Mendenhall, of Cincinnati, has practiced replacement of the funis by position, for some time past; and that he has published two articles in the *Lancet and Observer* upon this subject, with illustrative cases. After the cord is replaced, so long as the patient will keep the position, it is entirely unnecessary to retain the hand in the vagina. The position should be kept until the head takes the position which will prevent the descent of the cord, when the woman should be placed upon the side or back during the balance of the labor.

Injuries of the Skull.—In the *Louisville Medical Journal* for March, Prof. Middleton Goldsmith has an article upon the *treatment of injuries of the skull*, in which he proposes a substitute for the *trephine*. It is an objectionable feature of the *trephine* that so much sound bone is necessarily sacrificed. To obviate this objection, Prof. Goldsmith has, for the last ten years, used the “*chisel in place of the former instrument*.” He says, “With a *chisel*, impelled by the hand, or small hammer, just so much bone may be removed as is necessary for the insertion of the elevator, or for the extraction of the detached pieces, and no more. The *dura mater* is not endangered in the operation, for the depressed bone protects it. It is never necessary to cut any part of the internal table, for if the opening in the external table is as large as the fracture of the internal table, then the external opening is large enough to allow the required extraction.” To our mind, the *chisel* or *gouge* seems to possess such manifest advantages, that the only wonder is, that it had not long since suggested itself, and ere this, entirely superseded the *trephine*. Economy in the loss of skull bone is not a matter of trifling consideration.

Dr. Goldsmith says further, “In the next place, the writer has uniformly practiced the *immediate and perfect closure* of the wound in the scalp.” He believes “that the safety of the patient is vested more in the exclusion of the atmosphere from contact with the *dura mater* than in any other thing, and in any other circumstance in the whole operation of *trephining*.” . . . “Where there is no scalp wound, or when the latter is small, then the surgeon should make a semicircular flap, large enough to embrace the breach of bone, and to extend from one-

half to three-quarters of an inch beyond it." . . . "The incision should have no angles over the breach of the bone."

Dr. Goldsmith says he has operated for fracture of the skull, as above, more than twenty times during the last ten years, without losing a single case, and his colleague, Prof. Hardin, has operated seven or eight times also, without losing a case. This is certainly unprecedented success, and is, doubtless, in some measure related, as an effect, to the manner of operating and dressing the wound.

Swallowing Teeth.—In the *Dental Cosmos* for March, (an excellent dental journal, by the way,) Dr. Foster reports a remarkable accident of swallowing teeth. He says, "A gentleman of this city, (Wilmington,) thirty-five years of age, sanguine temperament, swallowed his artificial teeth at midnight on Wednesday. Physicians were called in, who fished for them, also tried the usual remedies, but all to no purpose; it was then concluded to let Nature take her course, (not doubting in the least that *her* course would be *death* to him,) when, to the astonishment of all, and his most unbounded delight, after a very painful and laborious stool, he found himself again in the possession of them. This did not take place until the following Monday, making the *round trip* in five days." The plate was quite heavy, to which three teeth were attached.

Pneumonia, &c.—In the first three numbers of the third volume of the *Medical Journal of North Carolina*, Dr. W. T. Howard has a very lengthy and able review of Dr O. F. Manson's essay on *malarial pneumonia*. We do not propose to enter the controversy, nor to give a synopsis of Dr. Howard's paper, which would well pay the perusal. We shall give only a brief notice of the treatment proposed. In malarial pneumonia, Dr. Howard favors the early and liberal use of quinine, and he enters with some minuteness into the literature of the treatment. He has, however, dealt more with early than with recent authors. Our readers are familiar with the fact, that we have, for some time, recommended quinine in pneumonia of an adynamic type, even though non-malarial. Our first article upon this subject was published in the *Lancet and Observer*, for October, 1858. In a former No. of our *Summary*, we have alluded to Dr. S. A. Cartwright's claim of first recommending quinine in large doses in pneumonia. He dates his claim as far back as 1826. Dr. Howard denies the claim of Dr. Cartwright, and avers that the quinine treatment was practiced, in some instances, both at home and abroad, anterior to that time. It matters but little, practically, who originated the treatment proposed; it should be universally known that, in *malarial pneumonia*,

quinine should constitute the principal treatment. Because of our ignorance and limited reading, we once supposed we were the first to advise quinine in the first stage of some forms of pneumonia, even when unconnected with a malarious influence. We have since learned that what was new to us was not so to some others. We believe that quinine is too generally regarded as exclusively a tonic. We have often expressed the opinion, that under some circumstances, it was a powerful *sedative*. It is to urge this opinion that we write the present article. Dr. Howard copies the opinions of Dr. G. A. Wilson, of North Carolina, upon this point, and they correspond so exactly with our own, that we quote them here: "*As early as the year 1838, I had to unlearn all that had been taught me of this agent as a stimulant and tonic, and of the dangers attending its administration in inflammatory states of the system. I have often noticed its effects in that class of cases complicated by cerebral determinations, and can safely say I have never known injurious consequences to follow. If stimulant at all, it has not acted in my hands as stimulants are wont to do. In many cases of high nervous excitability, it has had soothing and sedative effects.*"

Valerinate of Strychnia.—In the *Medical Journal of North Carolina*, for March, Dr. R. Wysong has an article upon the above compound.

The following is his formula of preparation:

" R.—Sulph. strych.,	gr. viij.	
Valerian. acid.,	ʒj.	M."

He says: "I have been using the val. strych. some ten months, and find that it is more particularly adapted to those cases where there is general debility, accompanied with nervous excitability, loss of appetite, indigestion, constipation, depression of spirits, and all the symptoms following, more or less, on the want of tone in the nervous system."

Treatment of Gonorrhœa.—In the *Med and Surg. Reporter* for March 24th, Dr. A. H. Stephens has an article on the treatment of gonorrhœa with the extract of *conium maculatum*. He reports prompt and happy effects from this agent—the cure being complete in from three to eight days. He gives the extract in twelve-grain doses every two hours. If giddiness is produced, the dose is diminished.

Ovariectomy.—In the *Boston Medical and Surgical Journal* for March 29th, Dr. A. B. Crosby reports a successful case of ovariectomy. The patient was 36 years of age, married, the mother of two children. The tumor was first observed about five and a half years previously. Paracentesis had been several times performed, and fluid

to the amount of 475 pounds had been drawn off. The operation was performed on the 28th of last August. The tumor and its contents weighed 28 pounds. Five weeks after the operation, the patient was able to dress herself, and direct her household affairs. There is no operation in which we take more interest than in ovariectomy. Several successful cases have been reported during the last year. Have the unsuccessful cases been suppressed?

Diphtheria.—In the *Lancet and Observer* for March, Dr. Isaac Meranda has a few remarks upon diphtheria. Dr. Meranda says: "A favorite remedy with us, and one which we consider admissible in every stage of the disease, is chlorate of potassa, combined with hydrochloric acid:

" R.—Chlorat. potas. pulvis,	3ij.
Hydrochloric. acid.,	f. 3j.
Aquæ,	f. 3viiij. M."

. . . "Of this, half an ounce may be given every two or three hours, according to the urgency of the symptoms." This is not an original prescription; it was, so far as we know, first proposed and highly extolled by Mr. Lambden, of Coningsby, in the *London Lancet*, for November 20th, 1858.

In a plethoric patient, Dr. Meranda prescribes, at first, calomel and jalap, in full purgative doses. In more feeble patients, he gives "calomel in alterative doses, conjoined with opium and ipecacuanha, or with camphorated Dover's powders." . . . "In some chronic cases, I have seen the happiest effects follow a moderate salivation."

We do not believe in the utility or propriety of this liberal administration of calomel in a disease so characterized by early prostration. Of all the local applications for the throat, internally, he says: "We have found nothing equal to the nitrate of silver. We prefer the solid stick, when we can reach the affected part; when we cannot do this, we apply a strong solution by means of the probang."

In the last four weeks we have seen a few cases of diphtheria, of no mild type. We may report our experience hereafter.

REVIEWS AND BIBLIOGRAPHY.

A Practical Treatise on Fractures and Dislocations. By FRANK HASTINGS HAMILTON, M.D., Professor of Surgery in the University of Buffalo; Surgeon to the Buffalo Hospital of the Sisters of Charity; Consulting Surgeon to the Buffalo General Hospital, and to the Buffalo City Dispensary. Illustrated with two hundred and eighty-nine Wood-Cuts. Philadelphia: Blanchard & Lea. 1860. Pp. 757.

The profession throughout the country, especially those engaged at all in surgery, or where their situation involves the necessity of taking charge of every accident requiring the aid of a physician, have anxiously awaited the appearance of Dr. Hamilton's great work on fractures and dislocations. It is truly a great work; both from the amount of labor, of which it is the result, and from its immense importance to a certain portion of the profession. In his preface, the author states the condition of English literature upon the subject of his volume, showing that here a great deficiency has long existed. "The English language does not, at this moment, contain a single complete treatise on fractures and dislocations. The two small volumes of Desault, the one of Boyer, issued near the close of the last century, and translated into English early in this, may perhaps, properly enough, have been regarded as complete treatises at the time of their publication, but they certainly cannot be so now considered. The several chapters on "*Diseases and Injuries of the Bones*," contained in the *Leçons Orales* of Dupuytren, translated in 1846, and the *Treatise on Fractures in the vicinity of Joints, and on Certain Forms of Accidental and Congenital Dislocations*, by Robert Smith, are invaluable monographs, but neither of them claim to be anything more than a collection of occasional and miscellaneous papers. The writings of Amesbury, and of Lonsdale, relate only to fractures. Even the justly celebrated quarto of Sir Astley Cooper is no more than what its title plainly declares it to be, *A Treatise on Dislocations and on Fractures of the Joints*; but since the announcement of the present volume, a translation of Malgaigne's great and crowning work on Fractures and Dislocations has been commenced by Dr. Packard, of Philadelphia, and the first volume has been placed in the hands of the American profession. Should the remaining volume be rendered into English, the gap in our literature will be measurably filled."

The reader will see that the present volume has filled a void in a most important department of our science. Such a want has long

been felt by all, and keenly felt by those whose practice in cases of fracture or dislocation has not been quite satisfactory to their patients. Those of the latter class have been mulcted, some justly, and some unjustly, without the benefit of any work in the English language as received authority on the subject. We do not intend, in making these remarks, to disparage the admirable text-books on surgery which have been issued from the American press, the works of American and English authors. It would, of course, be impossible that even a subject so important as that to which the present work is devoted, should be completely exhausted in a systematic work upon surgery; we wished to show the value and importance of a complete work on fractures and dislocations, before commenting upon the treatise before us.

It is the pride of American practitioners and surgeons to say, that in the practical application of their science, and art of medicine and surgery, they rank second to those of no other country. We can certainly claim equality, if not superiority, in this regard; and we think we will be sustained in the assertion, that in the treatment of fractures, our best surgeons stand pre-eminent. In this country, Prof. Hamilton has most identified his name with this subject, and is best qualified to write a work upon it, vindicating his claim and the claims of his countrymen to a high position in this department of surgery.

As this journal is not the medium of elaborate reviews, especially of systematic treatises, we cannot give more than a mere sketch of the plan and scope of the work before us.

Part I., more than two-thirds of the volume, is devoted to the consideration of fractures, embracing thirty-five chapters; six of which treat respectively of "general division of fractures," "general etiology of fractures," "general semieiology of fractures," "repairs of broken bones," "general treatment of fractures," "delayed union and non-union of broken bones." The remaining chapters treat of special accidents; in which, while all are considered, the appropriate prominence is given to those which are most commonly met with, and most important as regards diagnosis and treatment.

The chapters on fracture of the long bones, especially those of the lower extremities, are exceedingly minute and elaborate. The author's great experience in these accidents, and the minute study which he has given to the results under different surgeons, and with varied forms of apparatus, render these the most valuable portions of the work. Already has the profession reaped much benefit from Dr. Hamilton's labors in this direction; and the elaborate reports made by him to the

American Medical Association opened an interesting and comparatively new field of investigation.

Part II. embraces twenty-six chapters, treating of all forms of dislocations. In studying this section of the work, the reader will be struck with the great improvement which has taken place in this department of surgery of late years. Dexterous surgeons are now much more successful in their manipulations; and luxations which in old times inevitably brought into play the inquisitorial pulleys or adjusters, are now frequently reduced without pain, by simple manipulation. The so-called Reid's method of reduction of dislocation of the femur by manipulation is fully discussed, showing that these dislocations had occasionally been reduced without forcible extension, even as far back as the time of Hippocrates. Prof. Hamilton prepared a very elaborate paper on the literature of reduction of the os femoris by manipulation, for the *Buffalo Medical Journal*, appearing in the numbers for February and June, 1858.

Without going into an elaborate review, it would be profitless to discuss, at length, the numerous original and important contributions of the author to the subject of fractures and dislocations. Most of these are, or should be, sufficiently familiar to the profession, as Prof. Hamilton has long been known as an indefatigable investigator into all points connected with this subject. Still, a systematic treatise is quite different from the report of a detached observation; and one well known as an able investigator might fail in presenting an entire subject in the form of an authoritative work. In the work so long looked for by the profession, they cannot be disappointed; and the author has raised for himself, and for American surgery, an enduring monument. A few more such works, and a few more such workers, and America would contribute far more than her share towards the progress of our science.

Proceedings of the American Pharmaceutical Association, at the Eighth Annual Meeting, Boston, Mass., September, 1859. Boston: Geo. C. Rand & Avery. 1859. Pp. 416.

The proceedings of this active, energetic body have been on our table for some time, and should have received notice before this, but other books and other subjects have required our attention, so that the volume containing them has been laid aside until the present. After several days spent in deliberating over topics of interest to Pharmacy, while enjoying the hospitality of their Boston brethren,

the American Pharmacutists adjourned, to meet in New York Sept. 11, 1860. Their Proceedings, as contained in the volume before us, are specially valuable on account of the Reports of Committees being given in full, so as to show how active and business-like are the operations of the Association. A glance at the nature of some of these reports will show what the Association is furnishing at its annual meetings.

The *Report on Progress of Pharmacy* is a well-prepared abstract of all the discoveries and improvements in Pharmacy, published during the year ending with the period of the meeting. To those who have not ready access to many journals, (and what physician or apothecary has?) this report gives a bird's-eye view of all that is interesting or attractive, collected in such a condensed form that but little time is required to master it in full. On account of this abstract alone the volume is worth the price charged for it. But while this report is of practical use, we cannot say quite so much for that of the Committee on Weights and Measures. Much learning and laborious research have been employed in its preparation, but it seems to us as much out of place in this volume, as a treatise on *Quaternions* would be in the midst of an ordinary school Arithmetic. True it is, that there should be *international* uniformity, and that a national congress called for this purpose would pave the way for such a result, but we cannot even dream of the entire destruction of decimal arithmetic, of the abolition of the present system of arithmetical computation by tens. The author of this report, however, sets forth the objections to this system in computation, as fourths, eighths, &c., can only be obtained by the aid of fractions. He considers that an octonary series would obviate all this, and make our arithmetical labors more simple and intelligible. On an octonary basis, he would construct all our tables of weights and measures. This would require *new* phraseology, a specimen of which is as follows:

Un.	Du.	The.	Fo.	Pa.	Se.	Ki.	Unty.
1	2	3	4	5	6	7	8

The octades are named by the euphonious titles,

Duty.	Thety.	Foty.	Paty.	Sety.	Kity.	Under.
16	24	32	40	48	56	64

We doubt very much whether all the advantages of such a system would induce the world to commence learning new Numeration and Multiplication tables.

The *Report on the Revision of the Pharmacopœia* contains the suggestions of such practical men as Parrish, Grahame, and Carney, as to

the necessary changes which should be made by the decennial convention. *The Report on Home Adulterations* satisfies us of the increasing insensibility to truth and honor, in the case of some dealers in drugs and in articles required for table consumption. When shall the public be protected from rascality by proper legislation?

There are also a number of valuable *special* reports, made by members of the association, which are generally *real* contributions to knowledge. That on *Silphium laciniatum*, *rosin weed*, seems wonderfully *out of place* among the other reports. The object is to show the character of the silphium, and to answer the questions, "Can it be substituted for mastic? To what extent may it be collected as an article of commerce?" The author seems to have obtained about an ounce. He pronounces it preferable in taste to mastic; but speaks of its properties in allaying irritation of the lungs and checking coughing, not from having tried it, but from having tried mastic. To confirm his own "reasoning from analogy," he quotes the case of a young lady "who was troubled with very weak lungs, so much, in fact, that the difficulty was a source of anxiety to her friends, and she herself was fearful that she would be compelled to relinquish her employment as a teacher; for often, at the close of a day, she was scarcely able to articulate above a whisper." Fortunately, she lived "where the rosin weed was plentiful," and she "*got to chewing the gum*." She eventually became perfectly cured, and has to-day as strong and healthy a pair of lungs as could be desired." After this *scientific* statement, who can doubt the value of rosin weed? Who will hesitate to believe, that "were the virtue of this unpretending weed generally known, many valuable lives might be saved that now yield to the insidious and persevering *demolitions* of that destroyer, consumption?" "*Werry true, Sammy*," as old Mr. Weller would say. We were about quoting some sentences from the same report, describing a fire on the prairie, consuming the rosin weed, but—we forbear. If our friend of the *Knickerbocker* wants something graphic on this subject, we refer him to the report itself.

S.

A Medico-Legal Treatise on Malpractice and Medical Evidence; comprising the Elements of Medical Jurisprudence. By JOHN J. ELWELL, M.D., Member of the Cleveland Bar. New York: John S. Voorhies. Cleveland, O.: Alfred Elwell & Co. 1860.

Some systematic treatise, properly exhibiting and discussing the rights and liabilities of physicians and surgeons, growing out of the

practice of their profession, as well as the important subject of medical evidence, would meet a generally acknowledged want. The author of this work, by reason of his double experience in the professions of law and medicine, is presumed to be peculiarly qualified to supply this want; and having given to the subject, as he says, much labor and long thought, he leaves it to his readers to say how far he has succeeded in his effort.

After speaking of the general principles of law applicable to medical men, and the difficulties inherent in the practice of medicine and surgery, he discusses the subject of malpractice in cases particularly of a surgical character, such as amputations, fractures, dislocations, incised wounds, &c., &c., giving a digest of Prof. Hamilton's reports of cases of deformity after fracture, together with a series of adjudicated cases upon these several points.

The legal responsibilities of druggists in the exercise of their vocation, together with leading cases bearing on these questions, are also set forth.

The subject of malpractice in its criminal aspect is next discussed, and to this several chapters are devoted, embracing detailed cases and decisions of courts, both American and English. A chapter on abortion and fœticide closes the first division of the work.

The second treats especially of medical evidence, in which the importance of the subject, its history, and the rights and responsibilities of medical witnesses, are duly dwelt on, and some judicious and practical hints given to medical men, both in regard to preparation for, and manner of, testifying.

The vexed subject of medical evidence in cases of insanity occupies several chapters, and the difficulties that surround it acknowledged to be prominent and troublesome.

Chapters upon medical evidence in cases of poisoning, infanticide, wounds producing death, rape, and one upon the office and duties of coroners, conclude the volume.

We are constrained to say, in regard to this work, so desirable in kind and praiseworthy in design, that we are disappointed in its execution. So far as concerns the collection and embodiment in one volume of many adjudicated cases, scattered through the books, it may be of value to the profession; but as to elucidating the principles involved in them, or as to setting in a newer or clearer light the many medico-legal questions still undecided, we think they will derive from it but little assistance.

There is a want of thoroughness in the examination, and a lack of

appreciation of the nature of the subjects discussed in several portions of the work, that one regrets to notice. Particularly is this the case in that portion treating of the subject of insanity, the great defects of which (and the same may be said of other portions) are those which arise from a limited acquaintance with the literature of the subject; a strange misconception as to who are the recognized medical writers and authorities in this department, and from leaving many points undecided, and poised, as it were, between opposing opinions, without the benefit even of the author's own views upon the case.

It might not be equal to the expectations of the author to have his work termed a valuable book of medico-legal quotations, and yet, in fact, it amounts to but little more.

L.

Diseases of the Ear. By J. TOYNBEE, F.R.S. Republished by Blanchard & Lea. Philadelphia: 1860.

We have carefully read this book through. It has the merit of being founded on the large experience furnished by dissections of over 2,000 cases. The disorders of this complicated and exquisitely delicate organ the author has judiciously grouped into anatomical divisions: diseases of the meatus and its canal; of the tympanum and its cavity; of the ossicula and labyrinth; caries and necrosis of the mastoid cells, and adjacent bone, reaching into the skull.

Injections are a favorite remedy of the author, and pervade throughout the work every variety of cases. At page 108, it is remarked: "Here, perhaps, I may be excused a few words on the subject so frequently adverted to, as the danger of stopping a discharge of the ear.

* * * * Where strong injections have been employed, the symptoms that follow are not dependent upon the cessation of the discharge, but upon the inflammation caused by the irritant." Doubtless the injection can excite the existing chronic into acute inflammation; but, even if no inflammation be produced, the cessation of the discharge is too often merely the cessation of its *exit*, not of its formation; this goes on, though none escapes, as a *discharge*, pressing in all directions in search of an outlet, until it works through the thin leaf of bone that separates the seat of disorder from the cavity of the skull; *now* producing inflammation of the brain, almost always followed in a few days by death. Four such cases we have seen in adults, a few days previously in good health; the injection causing swelling and closure of the orifice that gave passage to the matter behind, arresting the discharge,

but not its secretion. We must, in justice to the author, say, that in Chapter XII. he cautions against the indiscriminate use of *irritating* injections, lest they confine the pus, and cites many interesting cases wherein the roof of the tympanum and mastoid cells became pierced, the brain affected, speedily followed by death. We have thought proper to make the foregoing remarks, having too often noticed the *matter-of-course* prescription of injections by general practitioners, who have not made diseases of the ear a study—know little about the ear; and to those we strongly recommend this work, as filling up a vacuum that is left void in systems of surgery.

The typography and general getting up of the book deserve all praise; but we much regret that the wood-cuts, while accurate as to drawing, are completely spoiled by the deep shading; so much so, in most of them, as to defy the eye to make out what they are designed to illustrate.

Introductory Lectures and Addresses on Medical Subjects; delivered chiefly before the Medical Classes of the University of Pennsylvania. By GEORGE B. WOOD, M.D., LL.D., President of the American Philosophical Society; President of the College of Physicians of Philadelphia; Professor of the Theory and Practice of Medicine, and of Clinical Medicine, in the University of Pennsylvania, &c. 8vo, pp. 460. J. B. Lippincott & Co., Philadelphia.

But few men in America have done more to advance medical science, and to endear themselves to the profession, than has George B. Wood, of Philadelphia. For many long years he has been a laborious practitioner, a lecturer and teacher of medicine, and yet his pen has been by no means idle. To attend to all the duties of a laborious practice, to keep one's self thoroughly posted in the literature of his profession, and to lecture daily, for four months in the year, to large classes, require no small demand upon one's physical and mental energies. When, in addition to all this labor, a man writes many large volumes, of unusual merit, we must ascribe to him superior industry and talent. The United States Dispensatory, Wood's Practice of Medicine, and his Therapeutics and Pharmacology, are, perhaps, the best works of their kind in the English language.

The volume before us, and for which we are indebted to the publishers, consists of nineteen lectures or addresses, upon various subjects connected with medicine, and were chiefly introductory to yearly courses of lectures, delivered in the University of Pennsylvania.

To the many students of this time-honored University, the volume

will be particularly interesting as a remembrancer of former years, when hope was big with honors and emoluments in anticipation.

Though the volume before us may add but little to our store of practical knowledge required by our every-day duties, yet it is none the less interesting, or less deserving of being read. It is full of good cheer, strengthening our resolutions of faithfulness, and encouraging us on to higher and nobler efforts. It is thus dedicated: "To the medical graduates of the University of Pennsylvania, from the spring of 1836 to that of 1860, inclusive, before whom were delivered, and in whose behalf were prepared, most of the following discourses, this volume is inscribed, as a memorial of the many agreeable, and, may I not say, profitable hours, they and I have spent together, and of the affectionate interest with which I continue, and, so long as life may last, shall ever continue to regard them.—George B. Wood."

The volume is well printed, on beautiful paper, and neatly bound in muslin.

O. C. G.

On Criminal Abortions in America. By HORATIO R. STORER, M.D., &c. Philadelphia: J. B. Lippincott & Co. 1860.

This volume is a collection of the essays under the head of "Contributions to Obstetric Jurisprudence," published in the successive issues of the *North American Medico-Chirurgical Review*, for 1859. Our views of the merits of these papers have been previously expressed. In our *Summary* in the September No. of the MONTHLY, we made reference to them, and endeavored to impress the reader with an idea of their importance. Our over-crowded pages will not permit an analysis of the work, and we must again content ourselves by referring our readers to these contributions of Dr. Storer. The subject of Criminal Abortion is intimately connected with not only the health, but the morals of the community, and cannot be too attentively studied in the light in which Dr. Storer has considered it.

O. C. G.

Braithwaite's Retrospect of Practical Medicine and Surgery. Part the Fortieth. New York: W. A. Townsend & Co.

This reprint, for January, was timely placed upon our table by the publishers. Its *three hundred and sixty pages* are filled with choicest selections from trans-Atlantic Journals. In addition to three or four American journals, every physician who intends to keep himself thoroughly informed in his profession, will take at least one of the reprints of foreign journals.

Ranking's Half-Yearly Abstract of the Medical Sciences, Part the Thirtieth, is also before us, through the kindness of the American publishers, Lindsay & Blakiston, Philadelphia.

Our readers will bear in mind, that for *four dollars*, sent to the office of the MONTHLY, either of the above reprints, with the MONTHLY, will be sent one year; making decidedly the cheapest, and yet the best, medical reading to be had in the country—*seventeen hundred* pages for four dollars.

O. C. G.

The British and Foreign Medico-Chirurgical Review, for January, is before us, through the politeness of the American publishers, S. S. & Wm. Wood.

This quarterly journal of British and Foreign Medical literature is indispensable to the buyer of foreign books. Its reviews are distinguished for ability and candor, and the reader is made acquainted with the views of all the more distinguished foreign authors. Its original department always contains able papers, and its *reports* upon the various branches of medical science are generally well made up. O. C. G.

PROCEEDINGS OF SOCIETIES.

New York Medico-Chirurgical College. Regular Meeting, February 8, 1860. DR. JOSEPH WOOSTER, Chairman.

DR. CARNOCHAN presented for examination a patient who had been under his treatment for some time, for *morbus coxarius*, which he said would illustrate in some degree the remarks he had made on this subject at the last meeting.

While the patient was being examined, Dr. Carnochan gave the history of the case, as follows:

This child has passed through all the stages of the disease, and yet the joint is in a pretty good condition, if not entirely well. About three years ago an issue was inserted in the vicinity of the joint, and a mild, general course of treatment adopted. By this treatment, the child was benefited considerably; but after a while, some six or eight months, it relapsed to its former condition, and the disease went on progressing, until finally, the second stage of the disease was reached. At this time, there was an abscess in the neighborhood of the joint,

which was punctured with the trochar, and about two tea-cups full of matter allowed to escape.

The child was then placed on the syrup of the iodide of iron, together with the application of the perchloride of iron upon the outside of the joint. After this, the child was taken into the country, it being able to move about on crutches, and it was not long after this before the flow of matter entirely subsided, and the child has now recovered to such an extent, that it is able to walk quite well on the affected side.

It was just such a case as this that I had in my mind when I objected to the universal exsection of the head of the femur in the latter stages of this disease, still not denying that the operation performed at the proper time might be followed by good results.

In fact, I have seen cases in the second stage, where, by using such mild therapeutic measures as the internal use of the iodide of iron, and the external application of the perchloride of iron, at the same time allowing the patients to take exercise on their crutches, they get well with a very good motion of the joint.

DR. SAYRE remarked, that in this case there was no motion whatever in the hip-joint; but what little motion the child had, was confined entirely to the pelvis. We often deceive ourselves in regard to this point, and attribute the motion to the hip-joint. If the members will watch that child closely as it walks across the room, I think they will admit that the motion in this case is confined entirely to the pelvis. It will also be seen that the flexor muscles of the thigh, the tensor vaginae femoris, the pectineus, the sartorius, are still strongly flexed, although the disease is nearly terminated. I think, then, the case would be very much benefited by the division of the flexor muscles, as it would give the patient the chance, at least, of the formation of a false joint, giving more motion than we now have.

The remarkable power of nature to form false joints, giving excellent motion to the limb, is beautifully illustrated in this specimen, the head of the humerus—which was exhibited to the College. The specimen was removed from a gentleman who received a fracture at this part of the bone some time ago. There was much difficulty in making out the diagnosis, the gentlemen in attendance not believing that any fracture whatever was present; the case, therefore, went on until finally the man died, and the opinion I had expressed at the time of the accident, namely, fracture, was confirmed by a post-mortem examination. We find in this specimen, the fractured end of the bone

rounded off and tipped with cartilage, and the cavity in which it rested even lined with *synovial membrane*.

DR. CARNOCHAN remarked, that he did not suppose from this case, that the same thing would take place in the hip-joint in *morbus coxarius*. In the case referred to by Dr. Sayre, the joint was in a *healthy* condition; nature had a sound, healthy surface to work on. But in *morbus coxarius*, we have a morbid condition; the chances for the formation of a false joint are by no means the same in both cases. Still, if we dare run the risk of the child dying from the operation, and are willing to take the responsibility, it is all very well; I am inclined to think, however, that it is far better "to let well enough alone." If we know a case will get along well, we must not run the risk of an operation.

Now, with regard to incision of the muscles, I suppose that Dr. Sayre, of course, divides the muscles subcutaneously; and this is no trivial or easy operation. We have large nerves and vessels in their immediate vicinity, which we must be extremely careful not to wound. Where the muscle is in relief, and is hard and corded, it may, perhaps, be done; but in this case, where the muscles are but little flexed, it would be a somewhat difficult matter to direct the tenotome so as to divide nothing but the muscle.

DR. SAYRE then presented a specimen having the appearance of some two or three molar teeth, half formed, and fused together. They were discharged from the ear of a little girl who visited his office that afternoon. The history of the case was so curious and interesting, that he had requested her to remain, that the members might have an opportunity of examining her. The history is as follows:

Elizabeth —, aged 8 years, had the measles in Scotland when she was 5 years of age, which was followed by swelling in the neck and all of the right side of the face. The mouth was nearly closed by the swelling of the gums and roof of the upper jaw. The ear was raised upward, and pushed outward by an immense swelling in the region of the mastoid process of the temporal bone. An abscess formed, and was finally opened just below the ear. A large amount of pus escaped, and after about three months she had another febrile attack, followed by intense pain in the ear, which was relieved by a rupture of the tympanum, and the discharge of an immense quantity of pus from the ear. This offensive discharge kept up for about eighteen months, when a *rudimentary tooth* escaped through the *meatus auditorius externus*, which is now in the possession of Dr. Watson, of this city. About four weeks after this, the present specimen was dis-

charged. This specimen is about $1\frac{1}{4}$ inch long, a half inch wide, and about a half inch thick. It appears to consist of the three posterior molar teeth of the upper jaw. In two weeks after this another portion was discharged, which is about three-quarters of an inch long, half an inch wide, and one-quarter of an inch in thickness. This appears to consist of the two posterior molar teeth of the lower jaw. After the escape of these bodies, she was relieved of the pain in a very great measure, and is now perfectly well, but has no hearing on the affected side.

DR. NELSON remarked, that in examining this child at the present time, it was quite easy to see that all the milk teeth are still remaining; consequently the specimens here exhibited cannot belong to those primitive teeth. Whence, then, come these teeth? There is but one way by which we can account for this strange phenomenon, and that is, by supposing it to be the result of the process of involution. We see so many of these cases where there is a foetus within a foetus, or at least a small portion of a foetus within another, that this manner of accounting for the appearance of these specimens is not rendered improbable. The portion involuted sometimes grows to a certain extent, or the development is arrested quite early. The individual in whom these portions are contained sometimes grows up to an advanced age, and then the portion involuted may be discharged by ulceration, or it may remain inclosed in a cyst and never produce any trouble.

DR. MEIER stated that formations of this kind were not unfrequently found in the interior of ovarian cysts.

DR. CLARK inquired if any one had seen these pieces come out.

The mother of the child, who was present, stated that she was the only one who was by when the pieces came from the ear. In the first instance, her attention was called to the child by its screaming from pain in the ear, directly after getting up. On looking into the ear, she observed a whitish substance, which she supposed was a bit of cotton which had been placed there the evening previous; on taking it out, however, it proved to be a tooth. The expulsion of the second specimen was attended by the same symptoms; so far as she could judge, these teeth seemed to come directly from the external auditory canal.

DR. SAYRE then presented a specimen of extensive *cystic degeneration of the kidneys*, with a written history:

Dr. W. H——, aged 39, of large and robust frame, had slight hæmorrhage from the urethra about eleven years ago, accompanied with

intense pain in the region of the right kidney. The blood continued to pass in clots for several days, accompanied with great pain. He was leeches, and bled from the arm very freely, for three days in succession. Was confined to his bed about six weeks, and convalesced slowly in about six months, when he went to California for his health, had the Chagres fever, which prostrated him very much, and left him with a diarrhoea, which continued for nearly eighteen months, the passages, most of the time, being more or less mixed with blood.

For the past two years, he has been compelled to pass his water nearly every half hour, day and night; his wife says he never got up less than eight times in the night for this purpose, and more frequently ten or twelve. He never complained of pain, and only suffered from intense thirst; always drinking a tumbler of water every time he got up to pass his urine, and would drink several pitchers full in the course of the day. The only other symptom that was noticed was a constant and intolerable itching of the anus, which gave him great annoyance, ever since his first hæmorrhage, eleven years since.

Within the past year, he has complained of fatigue and weariness, desiring constantly to rest in a horizontal posture. He, however, continued at his profession—(that of a dentist)—but would frequently leave his patients to rest a few minutes on the sofa; and which he attributed to his growing so fat, and was surprised to find that his increase in size was confined entirely to his waist.

Whenever he used the furnace to bake his porcelain, for the past year, he has suffered from epistaxis, which continued for several days, generally a week. Within the last year he has had a great many boils on different parts of the body; his wife thinks more than a hundred, from which he suffered great pain.

On Monday, the 9th of January, (1860,) he complained of a pain in the region of the right kidney, for the first time in ten years. This continued to increase until the 14th, when it became very severe, and about 3 o'clock he laid down, and opened his pants, complaining of their tightness, and, pressing both hands on his loins, asked his wife to rub and *press* him there, when he suddenly jumped up, crying out, "There, something has given way—now it's coming," and immediately the blood started, and he passed nearly three quarts. I saw him a few hours afterwards in consultation with Dr. Senff, and found him bathed in a cold, clammy sweat; pulse 130, small, easily compressed, and feeble; complaining of pain and weight in the right kidney. He was under the influence of morphine, and did not evacuate his bladder for thirty-two hours, at which time he passed about one pint of

blood, dissolved in a small quantity of urine. Whether the check of secretion from the kidneys was due to the excessive loss of blood, or the use of morphine, I was unable to determine. He continued to pass bloody urine for three or four days, when it again became clear and transparent, of the same amount, unmixed with blood. On the 20th, he had a slight convulsion, which was followed by a copious hæmorrhage and increased pain in the right kidney. A large-sized catheter passed readily into the bladder, showing there was no obstruction in the urethra; but the bladder was very small and corrugated, giving a very roughened feel to the hand when describing a circle with the instrument.

A distinct tumor could be detected in the right side, commencing just above the ilium, and extending upward, in the region of the kidney. It had an elastic, fluctuating feel, like an intestine filled with air, but was not resonant upon percussion, and was therefore diagnosed, as being connected with the kidney. He died in a convulsion on the 30th January, 1860, and on a *post-mortem*, is found the following condition of the kidneys:

Right, weighed 4 lbs. $\frac{3}{4}$ oz.; length, $13\frac{1}{2}$ in.; breadth, 7 in.; thickness, 4 in. Left, weighed 3 lb. $\frac{1}{2}$; length, 11 in.; breadth, $5\frac{1}{4}$ in.; thickness, $3\frac{1}{4}$ in. Made up of cysts, varying in size from a large walnut to a small pea, and filled with different-looking fluid—from a transparent serum, amber-colored, quince juice, jelly-looking material, up to the purple and jetty black; the latter, however, consisting mostly of blood. All of the black and bloody cysts were on the right side; the left was apparently transparent serous cysts. Both had undergone to a considerable extent the fatty degeneration. The bladder was very small and hypertrophic in its muscular coat; mucous membrane slightly thickened, but no hæmorrhagic spots. All the other organs were properly healthy. The lungs were much compressed by the distention of the kidneys, but were healthy.

The brain was not examined.

DR. BRYANT remarked, that with the permission of the Society, he would read a letter which he had received from Dr. Jennings, Veterinary Surgeon, of Philadelphia, in answer to a request for his experience with regard to the *action of anæsthetics on horses*.

The letter gave the reports of twenty-one cases, in some of which chloroform was given, for the purpose of destroying life; but in most, to facilitate the removal of tumors and the performance of other operations.

The reporter stated that he had never known a case terminate fa-

tally, from the use of chloroform in the horse, unless it was so designed. Sulphuric ether he regarded as of no service whatever, as an anæsthetic in operations on the horse; chloric ether answers very well, but cannot be depended upon. He had had no experience as to its effects on dogs, having used it in one instance only, that of a water spaniel; but the dog died within three minutes after the first administration of the anæsthetic. He had been informed by a friend, who had experimented much upon dogs, that with these animals it was a dangerous agent, terminating almost always fatally.

DR. CARNOCHAN remarked, that the very rapid manner in which the horses died under the influence of chloroform, was somewhat remarkable. There are several cases mentioned, where the animals died in some sixteen or seventeen minutes. In the human subject, he had frequently seen patients kept under the influence of the anæsthetic as long as an hour without any injurious result following.

DR. BRYANT.—The rapid destruction of life in the cases referred to, must be attributed to the fact, that the agent was administered for the purpose of producing death, and therefore, no precaution was taken to admit the atmosphere; on the contrary, the admission of air was almost entirely prevented, so that in addition to the influence of the anæsthetic, the animal was subjected to suffocation.

DR. WOOSTER stated, that in one instance he had purposely destroyed the life of a horse in this manner, and it was only with the greatest difficulty that the animal could be brought under the influence of the anæsthetic. Some eight ounces of chloroform were used; the animal lying in a recumbent position. On raising up the head for a few minutes, death soon took place. He thought that the injurious results seen in the human subject might often be attributed to suddenly raising the patient to a semi-erect posture, thus depriving the brain of its arterial stimulus.

DR. BRONSON presented a *fœtus*, which was the product of *extra-uterine gestation*, being delivered through a spontaneous opening in the abdominal walls, with the following history: On Wednesday, the 25th of January, I was summoned to see a patient, from whom I learned that she had conceived in April, 1859; that she had had peculiar sensations while carrying the child, but especially during the first part of December, about the 12th of which month, the child ceased to move, and since that time, she has been gradually failing. The peculiar sensations she spoke of were those of *crawling* from right to left; a sensation which is easily accounted for, as will be seen hereafter. Having heard this much of the history, I made a partial examination of

her case. I found the abdomen enlarged naturally, as from pregnancy, but to a limited extent; and in the course of the colon, the abdomen was enlarged, painful, and tympanitic. On pressing upon the parietes gently, but firmly, a mass was felt, simulating fæcal accumulation, and such I supposed it to be, and in part, rightly so. The patient was then in a hectic condition, pale and emaciated. Pulse 156. The surface of the skin, as well as the respiratory mucous membrane, gave forth a very peculiar odor. The cervix uteri did not present that condition which is ordinarily found in pregnancy at this stage, which I attributed to the fact that the foetus had been long dead. Such being the condition of the patient, I resolved upon the following course of treatment: To give quinine and morphine at intervals of three hours, together with brandy *ad libitum*, and the most nourishing diet. In addition to this, an enema was ordered night and morning, with the intention, as soon as her strength would permit, of exploring the uterus, and removing the source of her trouble. In the course of four days, her strength improved and the pulse became reduced to 128, but of little power. On the fourth and fifth days, I was enabled, by means of sponge tents, to examine the uterine interior, which I found empty. During the first four days, the injections brought away large quantities of compact fæcal matter, after which, the tumefaction in the course of the colon was materially reduced. At a point, however, midway between the umbilicus and the borders of the ribs upon her left side, the pain and tenderness increased, and the skin in that region became heightened in color. Her strength did not maintain its apparent increase, but gradually failed. On the 6th of February, at a point three inches and a half above the umbilicus, and one inch and a half to the left of the median line, the parietes of the abdomen had become so far absorbed as to present a small aperture, through which foetid and intestinal gases escaped. On the 9th of February, which is to-day, the aperture was found to be enlarged, simply by this process of absorption, to the diameter of one and a half inch, and through this opening, in the presence of, and assisted by, Dr. H. G. Davis and my pupil, Mr. Anderson, I removed a full-grown foetus, the soft parts of which are, to a great extent, decomposed; the fibrous and osseous tissue are still very perfect, presenting, as is seen in the specimen, the form and appearance of a foetus. The foetus was lying with its feet in the right iliac fossa, and the head in the left, the postero-lateral portion of the thorax of the left side presenting at the opening. This position accounts for the crawling motion felt by the mother during the life of the foetus. No placenta could be found, it having probably

passed away through an opening which, I should have stated before, was found in the colon, directly opposite the external opening. After the removal of the foetus, the mother was put upon quinine and morphine, brandy, &c., and left to rest.

DR. BRYAN remarked, that he knew of two cases that were analogous to this in some respects. One of them occurred in the practice of Dr. Yardly, of Philadelphia. In this instance, the foetus was removed, piece-meal, from the anus of the patient. It was supposed that it made its way from the posterior wall of the uterus, by ulceration into the rectum; the exact nature of the case, however, was not clearly ascertained.

The other case occurred in the practice of Dr. Bryan's brother, at Beverly, N. J. The patient was a fine, healthy woman, in every respect; she was taken in labor with the usual pains, when, very suddenly, the labor ceased; she recovered from the immediate effects of this shock. A tumor, however, still remained in the abdomen, and continued in this situation for some six months, until finally ulceration took place, and the foetus was discharged per rectum.

EDITORIAL AND MISCELLANEOUS.

— With the present number of the MONTHLY we commence the publication of a series of lectures upon the *Physiology of the Circulation*, by the distinguished physiologist, Prof. JOHN C. DALTON. Four lectures have already appeared in the late *Buffalo Medical Journal*, the fifth appearing in the present number of the united journals. The former subscribers to the old Buffalo Journal will receive the lectures in regular course; and the subscribers of the MONTHLY, in order to place them upon an equal footing, will receive the four lectures in one extra number, as a supplement to, and paged consecutively with, the April number, so that it can be bound up with the Thirteenth volume.

The republication of these lectures has been attended by considerable expense, but this has been cheerfully assumed, believing, as we do, that we are making by this publication an important addition to the medical literature of the country, and giving to our readers a series of lectures which will prove in every way acceptable and instructive.

Of the lectures themselves it is not necessary for us to say a single word. The high reputation the author enjoys, his devotedness to

physiological pursuits, and the eminent rank he has already attained as a physiologist, is the best guarantee of their great value. The Extra April number, containing the first four lectures, comprising 84 pages, will be sent to *paying* subscribers *only*. Those, therefore, who have already paid, may expect to receive this number; and those who may hereafter oblige us by becoming paying subscribers, will also promptly receive this number upon the receipt of their arrearages.

It is seldom we refer to pecuniary matters in the pages of our journal. The opportunity is, however, so good, that we cannot refrain from requesting our delinquent subscribers to pay promptly, both as a compliment to us, and as a duty to us. We are striving to make the MONTHLY as practical, as instructive, and at the same time, as entertaining a journal, as can be found in the country; and we shall look to all those who have subscribed for the journal, for the material aid which, we think, they should unhesitatingly send us. If there are any who do not wish our journal, and do not intend to pay for it, such will please inform us, that we may be no longer at the expense of sending it to them. Those who, on the contrary, are pleased with our efforts, and who desire to see still greater improvements in our pages, will send us the small sum due us; and we promise that every cent shall be expended in making the MONTHLY the most valuable medical journal in the United States.

This number closes the Fifteenth Volume of the "Buffalo Medical Journal and N. Y. Review." With the June number, (which will be sent as an extra,) will be given the title-page and index; and with the succeeding, or July number, will commence the first number of the combined journal.

— Among the recent lamented dead of our profession, we regret to record the name of Dr. Wm. C. Rogers, of Green Island, Albany Co., N. Y., who died on the 7th of April last, aged 28 years, of pneumonia.

A special meeting of the Albany County Medical Society, of which he was an honored member, was called on the 9th of April last, and resolutions appropriate to the occasion adopted.

As was said of him by one who knew him—"he was an enthusiastic and energetic worker in his profession; in his social nature, genial and happy; and to his patients, no less a friend than physician."

The pages of our journal have frequently been enriched by his contributions, and his recent death invests with peculiar interest the valuable paper by him which our present number contains, the manuscript of which reached us but a day or two before the announcement of its author's death.

—The January number of the "*Journal de Physiologie*" has been received, and will be noticed in our next number. The removal of its editor, Dr. Brown-Séquard, to London, will not at all interfere with the continuance of this journal. It will be published, as heretofore, at Paris. Dr. Brown-Séquard has been appointed to the charge of a new hospital at London, called the "National Hospital for the Paralyzed and Epileptic." Clinical lectures by this distinguished physiologist will soon be commenced at the hospital.

University of Maryland.—Dr. Edward Warren, of Edenton, North Carolina, has been appointed to fill the Chair of Materia Medica and Therapeutics vacated by the death of Prof. Frick, and Dr. Farnandis has been named as Demonstrator of Anatomy in stead of the late Dr. Berwick B. Smith. Dr. Warren contributed a number of articles to the MONTHLY some years since, and is now the editor of a medical journal published in North Carolina. In assuming the duties of his Chair, he bears with him our best wishes for success.

Unguentum Glycerini.—Under this title, Professor Simon, of Berlin, describes an ointment forming an excellent excipient, composed of five parts of glycerine and one part of amylum. It forms a smooth, butter-like substance, free of all smell, exciting no chemical action, and unaffected by temperature. It is to be preferred to similar substances: 1. For its elegance, its freedom from repulsive odor, and its not exciting erythema in irritable skins. 2. It can be kept in large quantities without undergoing change, even when chemically combined with other bodies. 3. Extracts and soluble salts may not merely be mechanically mixed with it, but may be held in a dissolved condition, the absorption being thus much facilitated. 4. As its consistence remains unchanged, it does not extend beyond the parts to which it is applied. 5. It can be removed with great facility — *Varges' Zeitschrift.*—*Medical Gazette and Times.*

Formula for Pepsine Wine.—Take of starchy pepsine prepared according to MM. Corvisart and Boudault's formula, one drachm and a half; distilled water, six drachms; white wine (of Lunel) fifteen drachms; white sugar, one ounce; spirit of wine (33°) three drachms; mix until the sugar is quite dissolved and filter. One table-spoonful of this contains fifteen grains of pepsine, and may be given after every meal.

A Medical Joke.—The dead are never sick; consequently, all diseases may be classified as affections of the "Liver."

THE AMERICAN MEDICAL MONTHLY.

JUNE, 1860.

ESSAYS, MONOGRAPHS, AND CASES.

On Pyæmia. By H. P. DEWEES, M.D. (Read before the N. Y. Medico-Chirurgical College, April 12, 1860.)

GENTLEMEN—At the last meeting of the College, I had intended to open the subject proposed for the discussion of that evening, Pyæmia, but owing to the lateness of the hour, and to the impossibility of exposing my views on a subject of such extensive physiological and pathologic relations, I asked, and received, permission to defer the discussion until this evening, when I should read before you a paper that would define these views, and better admit of subsequent consideration.

The subject of Pyæmia is so extensive in its relations, that its entirety cannot be encompassed in the limits necessarily attached to this paper. The attention of the College, therefore, will only be called to those most prominent pathologic attendants which at different times have been enunciated by me during the last fifteen years. But, before entering upon the discussion of the morbid phenomena, it will perhaps be more satisfactory to state some of the histological and normally mature relations upon which these views are based. And I would desire to be understood, that I do not here mean by Physiology, the study of the laws of life, as commonly defined; but the study of the dynamical relations of organic structures. Thus defined, physiology becomes correlative to histology and minute anatomy. Nor, by

Pathology, do I wish to be understood the study of *dead* structures alone, but rather the study of *dying* structures, since any aberrance from the normal standard of health is a true pathologic progression. It is only by this knowledge of "progressive pathology" that, to the "*ars medendi*," can be insured a result approximating to certainty. The intercurrent history of any disease is not inscribed by the finger of death. It is to be studied in the early alphabet of commencing disturbance, typed in the numberless examinations of those dying from other causes, but in whom an accompanying disease could be traced from its beginning to its end. It is thus only, by combination from its Alpha to its Omega, that pathology can become the language of disease.

The chyle and lymph are to be regarded as the primary condition and source of the blood. Their elaboration is intrusted to certain glandular actions. The lymph-ducts everywhere accompany the blood-vessels, and pour part of their contents, at least, into the current of the blood, in which the cytoïd lymph-corpuscle now becomes the white corpuscle of the blood. During the regeneration of the tissues, as well as in pure lymph exudations, an endogenetic action ensues, by which the corpuscles (now known as the cytoïd corpuscles) are developed. These cytoïd corpuscles are in every way identical with the white corpuscles of the blood. In their development, they are connected with the organic transformations of the plasma into tissue, and probably are the resultants of the primary regenerative action, by which the albumen of the afforded pabulum is converted into the various structures, by contact with the relative organic substance, in accordance with the law for the reproduction of organized similitudes.

The white corpuscles of the blood are subject to variation, not only as to their constituent composition, but also as to their number in proportion to the red, their density, and their contents. They contain less iron, but more fat, and have distinct nuclei; whilst no true nucleus exists in the red corpuscle. Their proportion to the red seems to vary according to the rapidity of structural demand. In the young, the proportion of the white to the red corpuscle is a third more than in the adult; whilst during menstruation and pregnancy, in which periods an almost similar corpuscular amount exists, the same proportion, when compared to the non-menstruating state, attends.

It would appear, therefore, from these and other facts, that in the normal condition, the white corpuscles are the indicators of the nutrient activity in the lymph itself, as they do not of themselves enter into structural repetitions, but are the products remaining after primary

assimilation. They thus indicate by their proportion, diminishing or increasing beyond the normal amount in the blood, one of two conditions. Namely, the supply of food being the same, that the clear nutrient lymph has been consumed by the assimilative demand, with a less amount developed into the cytoïd or white corpuscle; or, that the lymph has been supplied too profusely for actions of repair, and has been unassimilated and undergone corpuscular change, their excess being proportioned to the quantity not used. This view is corroborated by the examination of the blood in health, and in the abnormal condition called leucocythemia, in which the white corpuscles are in proportional excess. It is now to be remembered, that the products of the food, the chyle and lymph, are not immediately changed into red blood. Like that poured into the right heart by the thoracic duct, the lymph-vessels pour their contents into the blood-vessels in the various portions of the body, and afterwards the aggregated amount is subjected to the action of the lungs, which in their turn must be nourished, and submit their unused portions to the oxygenating process of the air-cells.

Development of the Cytoïd Corpuscle into the White Corpuscle.—The white corpuscle is then to be considered as the cytoïd lymph-corpuscle, in a state of organic progression. When subjected to the action of the lungs, oxygen is absorbed, and its albumen having received its increment of that element, it is converted into soluble fibrin, whilst the watery contents are displaced, to pass off as vapor from the surfaces of expiration, or remain to hold the salts of the liquor sanguinis in solution. The culminative transition into the red corpuscle now ensues, by the elimination of the nuclear contents of the white corpuscle at once, and their endogenetic development; or by their progressive perfecting, when submitted to the other organs in which the hæmagenic functions reside.

The red corpuscles, in this manner, owe their origin, in part at least, to the progressive morphoses of the white corpuscles, and hence it may be that the latter are the parents of the former. It is now that the liquor sanguinis is prepared to sustain the nutritive acts, after the active operations of the pure lymph have subsided. Hence we see how every portion of the nutritive supply is converted, and the demand for necessary renewal is made. The fibrillation of the fibrin, held in solution, is a vital act. It is necessary for the formation of the tissues, and when the supply is inadequate, or imperfect, changes of texture must necessarily ensue.

Transitive Changes of the Liquor Sanguinis.—The nutritive changes from the liquor sanguinis are effected in the transitive vessels, between

the arterial and venous circulation—the capillaries. The now perfected fibrin is evolved in its soluble state, according to the demand for the formative power of the various tissues, whilst the products of disassimilation are emptied into the venous radicals, to undergo the depurating processes of the excretory actions of the special organs. If this depurating process is interfered with by the derangement of any of these organs, then the extractive materials which should have been eliminated collect in the blood. Hence, the normality of the organic interchanges is disturbed, and the reductive changes are forced on other organs yet sound, but which may be disordered by this overtasking of the functions, and by the poisoning or reactive manifestations of the central or terminal portions of the nervous system.

The Red Corpuscle a Matured Product.—The red blood-corpuscle is, then, not to be viewed as directly concerned in the regeneration of tissues. They are the matured products of the nutritive act itself. Their chief function lies in their power of absorbing and holding in solution oxygen, and giving off carbonic acid and other gases, generated during the interchanges of nutrition, whereby the heat of the body is, in part, maintained; and this takes place not in the lungs alone, but wherever nutritive reactions ensue.

The liquor in which the red globules are suspended corresponds chemically with the lymph, there being rather less fibrin in the latter, as might be anticipated from the statements just offered, whilst the albumen is richer in the former. Lymph, then, is not to be regarded as derived from the blood itself, viz., the red and white corpuscles and the liquor sanguinis. But the blood is derived from the chyle and lymph. From these, in the human embryo, the blood in the second month is developed. Whatever influence the vessels themselves possess in the elaboration of the blood is not yet satisfactorily explained, although direct absorption by the veins is acknowledged, and may account for the increased quantity of albumen in the liquor sanguinis over that of the lymph.

Degenerative Cytoid Conditions.—It is to this disposition of lymph exudations to cytoid development that I would now call attention. It is the key to the comprehension of the formation of pus, and its morbid dissemination, called Pyæmia. As nutrition is compounded of assimilation and disassimilation, so is pus a resultant of degenerated cytoid corpuscles, and of the dissolution of the structures affected. If the condition, known as inflammation, should arise, the amount of local assimilable lymph may be increased at first, but is afterwards diminished. The organic nerves are excited, the capillary vessels become

lessened in calibre, fibrin is locally generated, the blood is hurried more rapidly through the part, whilst structural reactions are more or less deranged. Hence, in the very onset of the inflammatory process, disorder of local nutrition is established. In other words, normality—the highest state of vital action—is impaired. The plasma is prevented from being organized into true tissue—the cytoïd corpuscle is more or less degraded, and tends, by retro-morphosis, to degenerate into pus, an effete corpuscle, no longer subservient to the uses of the economy, since its arrest of development (from the original cytoïd condition) into the white and subsequent red corpuscle is effected. Unless the constitution is vitiated, or the local cause has been greatly depressent, the exuded lymph resists a rapid degeneration into pus, as seen in fresh wounds, wherein this change sometimes is not effected for many hours. The transitional grades may readily be perceived by even the unarmed eye. This persistence of vitality in lymph is taken advantage of in endeavoring to heal a wound by what is termed “first intention.” But if the individual be impoverished by disease, or his vitality be lowered, this persistence in the material for repair is lost, the organic cells become more or less vitiated or degraded, the nervous centres, or their terminations, are either irritated or depressed, exterior influences are unrestrained, and pus is early generated; or a sanious ichor proclaims the beginning of local chemical change. In the first condition cited, fibrillation is perfect; whilst in the second, its rapid disengagement (as of the other structural portions) into carbureted and sulphureted hydrogen, announces that chemical change is stronger than vital resistance. These are cases where pus has an exterior exit—not, as in pyogenic formations, inclosed in deep cellular or parenchymatous organs, where natural opening or surgical equalization, by the knife, cannot be attained.

Action of Nature in Pus Formations.—The action of nature is different in these cases. When art cannot reach the part, the pus remains localized as an abscess in the structure, or it is deposited in the cellular spaces; and its removal is to be effected, either by its being carried by chance into some patulous-venous orifice, with future impedimentary risk, or, by a series of auxiliary efforts of the capillaries and absorbents. The fluid portions are taken up; the granular portions, if disintegrated, enter the patent capillary vessels, (the dilating influence of the emitted gases, perhaps, aiding,) and their transmutations into excrementitious matter with excretory disengagement, may or may not ensue.

It is worthy of remark, that the retained pus-corpuscles of abscesses are smaller than those from open wounds. Pus contains not only an

albuminous material, but its granules are largely compounded of fat. Hence the emaciation which follows large suppurations.

If the disintegration of pus into its molecular basis, is not perfected in its transition to and through the excretory organs; in other words, if the lungs, liver, kidney, and other excretory organs and surfaces cannot resolve them into excrementitious, gaseous, or fluid excretions, the portions so incarcerated may become the foci of disorder of local nutrition, and thus superinduce pyæmic changes. It is thus that structural changes ensue in an organ, distal to the originating point of suppuration. Generally, the induced derangements are more of function than from absolute decadence of structure. Yet this sometimes does ensue, not in one organ or locality, but in several; and thus pyæmia is established. But it is the pyæmia of the structures, and not the pyæmia of the blood, in which the white corpuscles are everywhere degraded by a *toxic* element; and the red, long unfit for their normal uses in the economy, are in a condition approaching dissolution and decay.

It is to be remembered that the prominent outlines of pyæmic formations are only delineated, and that I am not describing the various processes of inflammation. This subject will be more fully entered on by our Fellow, Prof. Peaslee, in his following paper.

Corpuscular Pus never Absorbed.—Pyæmia, as now generally understood, is owing to the retention, dissemination, or generation of purulent or putrescent matter in the blood. True pus (i. e., in its corpuscular state) is never absorbed, as has been often stated. Artificial pyæmia may be caused by the accidental or intentional introduction of extraneous substances, with their subsequent arrest in the smaller vessels or capillaries. If phlebitis, or capillary inflammation is established, the coagulation of the blood in the injured vein may ensue, as an apparent means or attempt at arrest of further morbid propagation. The clot may soften, shrink, and dissolve in part into a pus-like fluid, leaving, after the absorption of the watery portions, a debris of mixed albuminous material, sometimes resembling tubercle. Or infarction of the capillaries may ensue, (sometimes designated “apoplectic spots,”) with local and surrounding textural degeneration into pus, the severity of the symptoms depending chiefly on the quality of the disorganizing mass, the constitutional conditions, and the organic value of the part itself. But this is a mere artificial pyæmia—innocent in its general conditions. It is not a *septicæmia*, in which the element is toxic and infectious. One partakes more of the nature of an infiltration;

whilst the other is a true purulent infection. For we many times have phlebitis attended with obstruction without pus infection.

Fibrinous Concretions.—Consolidated fibrin may break off from the valves of the heart, or from other parts, and be arrested in the pulmonic or systemic vessels, according to its location; and although it may soften and be dissolved into a purulent fluid, still the symptoms and the danger are more of obstruction than of contamination, and more of situation than of pathologic propagation. If located in the small vessels of the heart itself, giving rise to abscess, with discharge of pus into its chambers, or into the large vessels, coagulation may ensue, and life be suddenly cut short. Here the pus is impedimentary—not poisonous; or, the concretion may be carried into the lungs, giving rise to lobular congestion, or capillary apoplexy, with subsequent pus-generation; or, it may be carried into the brain, producing derangements of intellect, of sensation, or of motion. In all these cases, though pus may be produced, and the organs more or less deranged, yet the symptoms and the danger to life are more from local injury than from debasement of the vital force from purulent infection. But if the vitality of the blood has been lowered conjointly with that of the nervous system, then the local pathologic conditions are altered, sloughing or gangrenous dissolution may ensue, and thus a pyæmia be established, both local and general; and many of these cases pass for rheumatism, pleurisy, pneumonia, and other disorders, having “*itis*” as their termination, and have been consequently treated by depletory remedies, when the treatment should have been sustentative.

Preference of Pyæmic Locations.—The lungs are more prone, in pyæmia, to be early affected, as the purulent or septic materies is thrown into the right side of the heart, and thence into the pulmonic capillaries. Their physiological position as eliminators of morbid blood products, and the vital affinity that attracts to them the white corpuscles, especially for oxygenating purposes, offer the best reasons for the frequency of this pathologic impairment. If the morbid material has been forced on to the systemic side of the heart, the brain, liver, spleen, kidneys, &c., may become the seat of the affection. Another source, however, may arise, especially in injuries below the chest, from the introduction or arrest of the pus or septic animal matter, in the portal system, by the returning sub-venous currents; and this may be perfectly independent of any phlebitis of the immediate portal circulation, or of inflammation of the hepatic artery.

Pyæmic Pervasion.—A third form of pyæmia may arise, wherein every portion of the body becomes affected—lungs, heart, liver,

spleen, serous membranes, muscular structure and surface. And this grave condition ensues not so much from local purulent absorption *in se*, as by the degradation of every tissue, from degenerative elective actions of local nutrition, and from impurity of the plasma afforded. Unless we have been able to trace the early history of the patient's condition, an error is not unapt to be made in the diagnosis. Since our attention is more directly called to the patent symptoms of inflammation of the serous membranes, such as pleurisy, peritonitis, &c.; or when in parenchymatous organs, to the lungs, liver and spleen, from the exudative reactions offering in these parts. But nature here points out a most valuable lesson as regards treatment, but which our fathers neglected, as well as some of ourselves continue to do. The exudation, or so-called inflammatory product, *although lower than the normal nutritive plasma*, is yet higher than pus, and into this it would degenerate by any lowering plan of treatment. Both physiology and pathology dictate the contrary. The patient must be sustained by food, and alcohol especially, which has the power, as has been before stated by me, of arresting the too rapid decomposition of albuminous compounds.

In many of these cases there is no pericarditis from bursting of an abscess in the outer wall of the heart; there is no peritonitis from matter irrupting into the abdomen; or from a suppurating liver. There is no localization, no arrest with disintegration, or restrictive exudation; every organ is poisoned, and death results from the pervasion of molecular disorder of the whole fabric. And what does morbid anatomy show in autopsy? Sometimes absolutely nothing to the naked eye, save a few ecchymotic spots here and there, but no great depots of putrid pus; no ulcers with circumscribed borders, to show the effort of nature towards reparation. There is no witness standing forth from the dead organs; yet, in every fibre and in every molecule, there lurks the hidden attestor, proclaiming that the pathology must be studied in the *dying* as well as in the dead structures.

Superficial Pyæmic Elimination.—But the internal organs do not always bear the brunt of the disorder. The skin may either become the eliminating depot, the channel for blood depuration; or it may be the locale of the toxic introduction. This may happen in several ways: 1st. The natural eliminative capacity may reside in the surface. 2d. The septic introduction, or delay, may be in the integumentary capillaries, or in the superficial lymphatics. 3d. The peripheral nervous system may be paralyzed, or poisoned.

The prognosis in these cases is more favorable, in many respects,

than in internal pyæmia; since the bursting of an abscess externally, or superficial ulcerations, are comparatively harmless as to contents and local value, whilst the treatment can be better applied and watched as to effect.

Pyæmia of the Joints.—There are other surfaces in which pyæmic exhibition or infection ensues; namely, the joints. As mentioned by me in my article on “Rheumatism of the Epithelial and Non-epithelial Tissues,” the joints are more prone to become affected when the kidney is diseased, and especially after exanthematous disorders.

The joints are also liable to suppurative destruction, when the internal structure of a bone is injured or diseased. Hence, after amputations and fractures, especially compound fractures, with ends of bone more or less exposed, the disposition to pyæmia is most frequent. Statistics show that nearly one-half of the unfavorable results after amputation arise from pyæmia. The tissue operations are comparatively exempt from this complication, if are excepted those of perineal section of stricture, of lithotomy, and of the rectum. In post-puerperal states, the sterno-clavicular joint not unfrequently becomes affected, as stated by Dr. Todd, from pyæmic disturbance, with abscesses extending into the surrounding muscular structures. *The symptoms and cause are generally mistaken for those of rheumatism.*

Amongst what might be termed the natural causes of pyæmia, the most frequent arise from abscess in the leg, or purulent septic matter taken up from the uterus and the circumjacent pelvic organs. But bone seems a most favoring source for the transmission (if not for the absorption) of the purulent poison. The cancellous structures and haversian canals offer a ready conduction, whilst the stationary calibre of the vessels, from their adherence to the sides of their conducting canals, affords an additional source of entrance into the circulation. It is very certain that after injury, or other textural disturbance of the bones of the head especially, pyæmia is by no means an unfrequent complication. And, as before mentioned, the seat of the purulent retention is generally in the lungs and its serous coverings; whilst death may suddenly ensue from the coagulation of the blood, rapidly produced by some forms of pus, even in the interior of the heart itself. The shock to the nervous centres, by the blow or other causes, however, comes in for a participation in the pyæmic formations. In these latter cases, the depositions result more directly from the disturbance of the nutrition of the tissues themselves, than from *thrombosis* or embolic arrests, ushered in by coagulation or capillary apoplexies. These cases, whether from absorption

of the toxic elements of pus, or from depraved nervous changes over nutrition, are most resistant to treatment; since the fibrin is either not evolved, or it is of a soft flaky kind, indisposed to fibrillate, and readily breaks down into a pus-like fluid. The disorder, when so located, is frequently termed lobular pneumonia. In many cases of pyæmic localization in the lung-tissue, and its serous covering, as well as when in the joints or their neighborhood, I have known it diagnosticated as rheumatism, the *pain*, and not the *process*, being diagnostically considered; and such, I understand, was the belief in the case of one of our late eminent physicians.

Influence of Suppurative Surfaces in the Debilitated.—During low states of the constitution, any suppurative act may induce the pyæmic condition. It has followed gonorrhœa in the already debilitated, and especially if accompanied by perineal abscess. Though the vessels are anatomically more patulous in this region than in many others, yet the septic influences depend more on the particular diathesis than on the mere admission of pus itself into the larger vessels, or by its capillary reduction. Typhoid fever is also apt to induce pyæmia, by the absorption of the half-putrid contents of the bowels from glandular ulcerations and sloughing, as well as from the inability of these glands to depurate the blood from its excrementitious impurity. Sometimes the mucous membranes throw off vast quantities of puriform matter, and hence arose, in great measure, the term “secretion of pus.” But pus is never secreted—it is an effete material, and as such it is excreted, as no longer serving vital uses. For pus is a product of change—it is not a process—it is the de-vitalized result of blasted organization, and hence it is neither secreted, nor has it the power of organic re-formation. In those cases of erysipelas attended by suppuration, but which may suddenly, in the progress of apparent cure, eventuate into pyæmic symptoms, the constitutional damage (in many individuals) has been antecedent to the erysipelatous irruption, from more or less chronic disorder of the kidney especially; the lowering of the nutritive assimilations being attributable more to the uræmic condition, than to any special toxic infection from the absorbed pus.

In considering this subject, the space allotted me has been encroached upon by the histological, physiological, and pathologic recital of the normal and abnormal blood conditions, with some of the many existing structural changes. The remaining space will be occupied by a more condensed exposure of my views on the *rationale* of treatment.

Treatment.—This should be decidedly sustentative. But here comes the difficulty, to know how much animalized food can be safely borne, and how much hydro-carbon can be advantageously administered in

the shape of alcohol. I say *safely* borne, since it must be remembered that the blood is already overcharged with the animal products of decaying pus and rapidly wasting tissues. Assimilation and assimilative power are so brought to their lowest conditions, that the lymph and cytoïd corpuscles are robbed of their normal capacity, and have impressed on them a predisposition to assume lower organic forms, down to pus itself. It is thus that pus begets pus.

The organic balances, then, are to be accurately studied, to determine the exactitude of treatment. If the eliminatory organs are equally impaired, or are equally overworked, alimentation and alcoholization must be proportioned, so as to keep the remaining constitutional power at the *effort guage* it is capable of working under. Above or below this standard is injurious, or tending to fatal result. For if above, the nervous system is forced beyond its legitimate condition for recuperation; if below, besides the increasing blood depravity, it is subject to molecular degradation in its own structure. Generally, this proportionate equality in the standard of the eliminatory organs does not attend. The kidney may be defective, whilst the lungs are comparatively sound, and making great effort to throw off, by ammonia, carbonic acid, and vapor, the additional amount imposed on them for elimination. Or the liver may have been submerged in its functions, and with a defective kidney, add to the vast constitutional poisoning by the imperfect excretion of bile so essential to primary nutrition, and by the non-excretion of the products from the blood, now pus-poisoned.

Thus, there is no exact constitutional level; assimilation is at a low ebb; reproduction is fast yielding to destructive resolution; and chemical changes threaten the whole system. What can be done to cause this havoc to stand still, or that will drive death beyond the precincts of life? Will alcohol, a nervo-stimulant, but a hydro-carbon, do it? Will it, in a blood already surcharged with the destructive products of disassimilation, and the emunctory organs paralyzed in their function, will it form the remedy to sustain life, or will it fail to strengthen and repair? The lungs, laboring like some Vulcan at the bellows, can they escape the immutable law that assigns a doom to every organ overtaxed in its functions? Can they live through the deadly corruption that attraction fastens on their textures?

These are questions that must arise in the study of the treatment; and, although the broad basis of sustentation must be stood upon, still it becomes the question, what other remedy will keep the vital powers in their normal action, without adding to the load of the re-

tained elements now overwhelming the system? Is alcohol the only platform upon which the foot of success can rest? Or will other remedies, having no oppressive re-formations, and whose bulks do not inconvenience the stomach, whilst their influence is special and tonic, but not tumultuous, will they in practical result, as well as in theory, sustain the powers of life better, or even as well, as alcoholized remedies?

It is to be remembered that I am speaking of those cases in which the great eliminatory organs are either diseased or paralyzed in their functions. There is no doubt, where these organs can sustain the elimination of the plusages of carbon, &c., that alcohol forms a most trusty remedy. It is not so much by the sustentation of the nervous system, as by its affording free carbon for oxygenation, in place of that combined in the tissues, especially in the fat so essential to the brain and nerve-formation; and also by its inherent property of retarding the too early retro-morphosis of albumen, which, as stated by Prof. Peaslee, is the *pabulum* of the tissues. But I have cited cases where the impediment to functional excretory action is great; where, besides carbonic acid, the lungs exhale putrid nitrogenized matter, held soluble in their vapor, and tainting the breath with its descriptive fœtor. Thus the stone of Sisyphus,

“Ingens et non exsuperabile saxum,”

is ever rolling back on the weakening arm of life. Have we in bark, in its alkaloids of quinia, chinoidine, &c., in arsenic, in corrosive sublimate, and the like, have we properties of sustentation as well as of molecular septic retardation? It is only by such investigation and faithful observations that medicine can make its approach to a scientific basis. For a man may be as thoroughly drowned in his own fluids—the great centres of life, circulation, innervation and respiration, may be as surely submerged and extinguished by induced internal conditions, as though the individual were sunk full fifty fathoms deep.

Fact vs. Theory.—But these theories, so expressed, are more specious than feasible. It is to be remembered that the blood is not burdened with the materials of assimilation, but with the effete and putrescent products of *dis*-assimilation. The waste is greater than the repair—and that waste is not an organic debris, but a poison. Then alcohol, in *regulated* quantities, is not only a food, but it becomes an arrester of dissolution and decay. It is to *alimentation* that our attention and care must be turned. For more die from the overcrowding of nitrogenized food than of carbonized remedies. The beef-tea, and not the brandy,

is to be watched. Oils, such as the cod-liver, are chemically and assimilably demanded; they supply the waste, whilst the alcohol, by its stimulus, sustains the nervous system, till the eliminative actions are consummated.

Alcoholismus.—It is true that the drunkard's acne-covered face, his bloated and ulcered limbs, his slaving mouth, and drowsy brain, seem to point the finger of distrust towards alcohol as a remedy in the pus-poisoned. But it must be remembered how, from neglect of cleanliness, of hygiene, of sleep in the mid-hours of the night, when stupor wastes and makes him wander, how this man of many errors falls under the ban of nature's broken laws—a bankrupt in all health. He is the poisoned witness of every debauchery, and of the *abuse* of alcohol; and acne, and ulcers, and atrophied peripheral nerves, both organic and sensory, tell more the tale of many vices than of one alone!

We have now considered some of the chief forms of pyæmia. One induced by pus localization—comparatively benign in its influence, although attended by disorder of local nutrition; the other, a true pyæmia or septicæmia, from the breaking down of exudation, with an additional internal toxic element from decay or putrefaction.

Cadaveric Pyæmia.—But there remains a third form from external introduction, as from dissecting and other wounds possessing a multiplying septic element. It is the pyæmia of inoculation, specific in its character. Like inoculation from variola, equinia, and syphilis, it produces certain changes in the nutritive fluids, or cells; but it is not subject to their type-life conditions of regularity, of duration, and manifestation. The retro-morphic changes generally are more persistent, the eventuations more hazardous, and the recovery therefore more tedious, and less frequent.

I will not further occupy the attention of the College; and in conclusion, will merely mention that I have intentionally refrained from dilating on the pyæmic complications of puerperal fever, as their consideration would call for more time than could be granted at this session. Nor have I given place to the symptomatology of pyæmia, as I did not consider it necessary to the intention of this article, and as the prominent features were known to all, whilst the discussion of those of the occult or mixed character would draw still more on your time and patience, now already overtaxed.

The Physiology of the Circulation. A Course of Lectures delivered at the College of Physicians and Surgeons, New York, in the Fall Term of 1859. By JOHN C. DALTON, JR., M.D., Professor of Physiology and Microscopic Anatomy.

LECTURE VI.

(SEPTEMBER 28.)

Venous Circulation—Structure of the Veins—Their Inosculation—Pressure of Blood in the Veins—Fluctuating Character of Venous Current—Influence of Muscular Contraction—Of Respiratory Movements—Pulsation of Veins near the Thorax—Force of Aspiration exerted by the Chest—Its Effect on the Movement of the Blood—Experiment—Introduction of Air into the Veins—Mode in which it produces Death—Experiment—Introduction of Air in Surgical Operations—Cases—Symptoms—Instances of Recovery—Post-mortem Appearances in Fatal Cases—Means of Diagnosis—Introduction of Air by Vessels of Uterus—Recorded Cases—Case of Dr. Swinburne.

To-day, gentlemen, we shall pass from the consideration of the arterial to that of the venous system; from the study of the circulation of the blood in the arteries, to its course through the veins, in its returning passage from the capillaries to the heart.

You already know the general structure and arrangement of the veins, and the main peculiarities which distinguish them from the arterial tubes. I shall not, therefore, take up your time by dwelling upon these points, but shall ask your attention more particularly to the conditions which affect the movement of the blood in these vessels, and the variations of the venous circulation in different parts of the body.

Although the veins are provided with walls which are very much thinner and less elastic than those of the arteries, yet, contrary to what we might expect, their capacity for *resistance to pressure* is equal, or even superior, to that of the arterial tubes. Milne Edwards has collected the results of various experiments, which show that the veins will sometimes resist a pressure which is sufficient to rupture the walls of the arteries. In one instance the jugular vein supported, without breaking, a pressure equal to a column of water 148 feet in height; and in another, the iliac vein of a sheep resisted a pressure of more than four atmospheres. The portal vein was found capable of resisting a pressure of six atmospheres; and in one case, in which the aorta of a sheep was ruptured by a pressure of 158 pounds, the vena cava of the same animal supported a pressure equal to 176 pounds.

This resistance of the veins is to be attributed to the large proportion of white fibrous tissue which enters into their composition; the same

tissue which forms nearly the whole of the tendons and fasciæ, and which is distinguished by its density and unyielding nature.

The *elasticity* of the veins, however, is much less than that of the arteries. When they are filled with blood, they enlarge to a certain size, and collapse again when the pressure is taken off; but they do not react by virtue of an elastic resilience, or, at least, only to a slight extent, as compared with the arteries. Accordingly, when the arteries are cut across, as we know, and emptied of blood, they still remain open and pervious, retaining the tubular form, on account of the elasticity of their walls; while, if the veins be treated in the same way, their sides simply fall together and remain in contact with each other.

Another peculiarity of the venous system is the *abundance of the separate channels*, which it affords, for the flow of blood from the periphery towards the centre. The arteries, as you know, pass directly from the heart outward, each separate branch, as a general rule, going to a separate region, and supplying that part of the body with all the blood which it requires; so that the arterial system is kept constantly filled to its entire capacity with the blood which passes through it.

That, however, is not the case with the veins. In this injected preparation of the vascular system, you observe, we have two, three, four, or even five veins, coming together from the same region of the body. You will notice, also, that there are abundant inosculations between the different veins. The deep veins which accompany the brachial artery inosculate freely with each other, and also with the superficial veins of the arm. In the veins coming from the head, we have the external jugular communicating with the thyroid veins, the anterior jugular, and the brachial veins. The external and internal jugulars communicate with each other, and the two thyroid veins also form an abundant plexus in front of the trachea.

Thus the blood, coming from the extremities towards the heart, flows, not in a single channel, but in many channels; and as these channels communicate freely with each other, the blood passes sometimes through one of them, and sometimes through another.

We find, accordingly, that the venous system, as a whole, is not, in its normal condition, constantly distended with blood. One part of it, on the contrary, may be full, while another part is comparatively empty. One vein may be compressed, while another is left free; and a fluctuation of the blood, therefore, may readily take place from one portion of the venous system to another, as different parts are alternately filled or emptied.

On account of this arrangement, you will see at once that the entire pressure of the blood in the veins cannot be judged of in precisely the

same manner as that in the arteries. We found yesterday, in studying the pressure of the blood in the arteries, that this pressure was the same, or nearly the same, throughout the whole arterial system. It is the same in a large artery as in a small one; and the difference is not great, whether we apply the mercurial guage to an artery near the heart or to one at a distance from it. If we apply the guage to the aorta, we get the pressure of all the blood passing through this tube to the whole body; and the pressure indicated must be sufficient to distribute that quantity of blood to the entire system. If we apply the guage, on the other hand, to the femoral artery, we there find a quantity of blood, which is adequate for the circulation of the lower extremity, propelled by a corresponding force. These relations remaining the same throughout the entire system, the indications of the guage are not essentially different, whether we apply it to one artery or to another.

But it is not so with the venous system. In this part of the circulatory apparatus, the pressure diminishes, very distinctly, from the periphery toward the centre. It has been found that if the mercurial guage be applied, at the same time, to the carotid artery, the metatarsal vein, and the jugular vein, the column of mercury may indicate a pressure of 165 millimetres for the carotid artery, but only 27 millimetres for the metatarsal vein, and 9 millimetres for the jugular. Volkmann experimented in a similar manner upon a horse, and found that the pressure in the small veins of the neck was 44 millimetres, while that in the jugular was only $21\frac{1}{2}$ millimetres. In a goat, the pressure in the facial vein was found to be 41 millimetres, and that in the jugular vein only 18. So that the cardiometer indicates a diminution of pressure from the arteries to the veins, and a further diminution, in the veins themselves, from the periphery toward the heart.

This is not, however, because the force, with which the blood is returned to the heart by the veins, is really less than that by which it is distributed outward by the arteries, but because its passage through the venous system takes place by so many collateral channels, which communicate with each other by inosculating branches. If we apply the mercurial guage, for example, to one of the veins of the extremities, it does not indicate the entire pressure of the blood, as it returns towards the heart; for a large portion flows off by other veins, and so finds its way back, by a different course, to the centre of the circulation.

A very ingenious experiment, by Poisseuille, has shown that this difference of pressure in the venous system is more apparent than real;

and that it is owing to the cause which I have just stated. If the cardiometer be placed, at the same time, upon the artery of a limb and upon its accompanying vein, we shall find, as I have said, that the pressure in the vein is much less than that in the artery. But if all the rest of the limb be surrounded with a ligature, so as to compel the whole of the blood to return by a single vein, the pressure in the vein will then be seen to rise, until it is nearly or quite equal to that in the corresponding artery. Undoubtedly, there are some organs in the body where the venous pressure would be even greater than the arterial, owing to an increase in the mass of the blood as it passes through the capillary circulation. But these variations I shall speak of more particularly hereafter.

The blood returns to the heart, therefore, by a considerable number of inosculating venous channels; and the pressure of the blood in the veins diminishes, for that reason, as we approach from the circumference to the centre.

There is another peculiarity of the venous circulation, still more marked than that which I have just described. It relates to the *physical impulses* under which the blood moves through the venous system.

In the veins, the blood does not flow with a regular rhythmical movement, like that of the arteries. In them, there is no regularly returning expansion and collapse, corresponding with the pulsations of the heart. The blood flows through the veins with an intermittent motion, it is true, but this movement is irregular, and not rhythmical. It is to be seen, more particularly, in the veins of the external parts of the trunk, in the neck and extremities; in all those parts, indeed, where the venous channels pass between muscles, or through the muscular tissue. The voluntary muscles, in these parts, are continually contracting and relaxing. Their contraction compresses the veins which pass between them, and thus drives the venous blood onward, in its passage toward the heart.

This movement is provided for, as you know, by the valves of the veins, which are so arranged that they open toward the heart, and shut backward toward the capillaries.

Here you have the jugular vein of a dog, which I removed this morning, cut open in such a way as to show the valves. They are arranged, as you observe, in pairs, upon the internal surface of the vessel. They have the form of membranous festoons; and by directing a stream of water or of air against them, in a backward direction, they may be made to fill out and become distended, with their convexities looking toward the cavity of the vein.

Here is the jugular vein of an ox, still unopened; by tying one end of it, and then inflating it with air, the position of the valves in the interior may be readily distinguished by the bulging prominences which show themselves at various points. These valves are mostly double, but there is one situated near the end of the vein which is composed of three distinct festoons. When distended, their edges come in contact with each other, like those of the pulmonary or aortic valves.

These valves prevent the regurgitation of the blood when the veins are subjected to external compression.

You will see, then, how it is that the venous circulation is influenced by the action of the voluntary muscles. This action is irregular, but nevertheless is constantly recurring, at nearly all periods of the day. The muscles contract, and drive the blood onward toward the heart. They relax, and the veins fill up again from behind. The blood is moved through the veins, not by a contraction of the walls of the veins themselves, but by that of the voluntary muscles situated outside of them. The action of the voluntary muscles, therefore, in the venous system, replaces, to a considerable extent, that of the heart in the arterial system.

The circulation in the veins, accordingly, differs from that in the arteries by the irregularity of its movement. The flow of blood in the arterial system is regular and rhythmical; in the venous system it is variable and fluctuating. The arteries are constantly full of blood; and the arterial pressure is constantly the same, or is varied only by the pulsations of the heart. The veins, on the other hand, are alternately filled and emptied by the muscular contractions, and the pressure varies in each vein, as its collateral branches are open or obstructed.

There is another peculiarity still, in the venous circulation, which I will not omit to mention. It is that the venous current is influenced, to a great degree, by the movements of the chest. If we examine any large vein in the immediate neighborhood of the thorax, we shall find that it alters very perceptibly in appearance with the movements of respiration. At every movement of expiration the vein becomes turgid, and at every inspiration it collapses again to its former size. Now, what are these movements of respiration, and why should they affect the flow of blood through the veins? We have already examined them to some extent, in connection with their effect on the arterial pressure. In the movement of inspiration, the air is drawn into the interior of the thorax by a lifting action of the ribs and a descent of the diaphragm. This is, in reality, a *suction* movement,

and, when it takes place, all the fluids are drawn into the chest which can gain access to its cavity—the air through the trachea, and the blood through the veins.

At each inspiration, therefore, the veins in the neighborhood of the chest collapse, and at every expiration become distended. This alternate movement of expansion and collapse is very marked whenever the respiration becomes rapid or laborious.

Now, you will recollect that this effect of the respiratory movements was very perceptible yesterday, when the mercurial gauge was applied to one of the arteries. We saw then that the pressure of the blood in the vessel was influenced by three different causes: *first*, the constant and steady reaction of the arterial system; *second*, the contractions of the heart, which produced an oscillation of five to fifteen millimetres; and *thirdly*, there was another oscillation, which was synchronous with the movements of the chest. At every inspiration the column of mercury fell, and at every expiration it rose to a higher level.

A somewhat similar experiment has been tried with the veins. A bent glass tube was introduced, by Barry, into one of the large veins near the heart, and secured by ligature. The other end of the tube dipped into a vessel containing a colored fluid, and at every inspiration the colored fluid was seen to rise in the tube, while at the moment of expiration it descended to its former level.

We find, therefore, that whenever the chest expands, the blood flows into it from the neighboring veins, in the same way as air flows in through the trachea; and when inspiration ceases and expiration begins, the veins fill again up from behind, and thus regain their original size. The force by which the blood is thus drawn toward the chest, by the respiratory movements, is called the force of *aspiration*.

In order to exhibit this action of the veins, I will now etherize the animal which we have here, (a cat,) and afterward expose the external jugular, as it passes down the neck. You now see the vein, running from above downward, over the anterior surface of the sternomastoid muscle. It is moderately distended with blood, but we do not see, as yet, any changes in its size, corresponding with the movements of respiration. There is no emptying of the vein at the time of inspiration, nor any distention at the time of expiration. This is because the portion of the jugular which we are now examining is at too great a distance from the chest, to show the effect of the thoracic movements.

If, however, we uncover a portion of the vein which is nearer the

entrance of the thorax, it will then, no doubt, be visibly affected by the movements of respiration. I now expose the vein farther down, dissecting away the muscles which cover it, nearly to the point where it enters the cavity of the chest. You see now that at the lower extremity of the wound, the vein becomes partially collapsed and emptied at each movement of inspiration; whereas at the upper part of the wound, where the vein passes over the sterno-mastoid muscle, no such movement is visible.

You can see, in fact, at the lower part of the vein two different movements at the same time. One is the alternate expansion and collapse of the vein, synchronous with the rise and fall of the chest in respiration. The other is a more rapid, tremulous motion, corresponding with the pulsations of the heart, the impulse of which is communicated to this portion of the vein.

Now, with regard to this force of aspiration exerted by the chest upon the venous blood, there are two circumstances which it is important to remember.

In the first place, in the ordinary condition of the respiratory movements, when the breathing is perfectly calm and regular, there is but very little visible effect produced upon the veins, even in the immediate neighborhood of the chest. The collapse of the veins at the moment of inspiration is hardly perceptible to the eye. I do not doubt that an effect is really produced upon the venous circulation even then, and that the flow of blood toward the heart is favored by the movements of the chest. But at this time, the force of aspiration is so gentle and uniform that the veins fill up from behind by the venous current as fast as they are emptied in front by the expansion of the chest. If you etherize an animal, therefore, as we have done in this instance, and then expose the jugular vein at the lower part of the neck, so long as the respiration is quiescent you will not see any marked fluctuation in the vein externally. It is only when the movements of respiration become hurried or laborious that this fluctuation becomes manifest. For then, the vein is emptied by the forcible expansion of the chest faster than it can fill up from behind, and of course it collapses visibly at each inspiration. As the breathing becomes more violent, the alternate movement of collapse and distension is more decided, and corresponds in intensity with the movements of respiration.

For the same reason, the venous fluctuation is most marked in continued struggling or crying. The breathing is then performed by long and continuous expirations, alternating with quick, short, and

violent inspirations. Accordingly, the veins suffer a corresponding distention and collapse at that time, when these movements would be hardly perceptible in the ordinary condition of the respiration.

In the second place, when the breathing is thus hurried and laborious, the force of aspiration only acts upon the veins *in the immediate neighborhood of the chest*. You saw, in the experiment which we have just tried, that while the venous fluctuation was quite visible in the lower part of the jugular, it was not at all so in the upper part of the same vein. Why is it, that this emptying and filling of the veins should take place at the upper part of the chest, and not in the middle of the neck? The explanation of this fact is very important in connection with the movement of the blood, and also in regard to a peculiar surgical accident which I shall speak of in a few moments. Why is it, then, that the venous fluctuation should be visible at this time in the immediate neighborhood of the thorax, and not at a distance from it?

It is simply because the walls of the veins are loose, flexible, and liable to collapse. They cannot maintain their tubular form, when suddenly emptied by the force of suction; and, therefore, when the veins are affected by the movements of the chest, not only is the blood which they contain drawn into the thorax, but their walls are at the same time drawn together, and the veins collapse.

We find, accordingly, that the emptying of the veins, by a violent inspiration, is not felt at a distance from the spot where the force is originally exerted.

We can see the same thing perfectly well, by experimenting upon any flexible tube with yielding walls. Here, for example, is a syringe, to the nozzle of which I have attached a flexible india-rubber tube with thin walls. I dip the lower extremity of the india-rubber tube into a vessel of water. Now, if I withdraw the piston of the syringe slowly and gently, the water is drawn up into the tube, as the blood is drawn through the veins by a quiet and easy inspiration. But if I withdraw the piston by a sudden and forcible motion, the walls of the tube, you observe, immediately collapse, and no water can gain admittance into the syringe.

This is precisely what happens with the veins, in regard to the movements of the thorax. They collapse so readily, in a forcible inspiration, that the only blood drawn into the chest is that which was to be found at a very short distance from its cavity. It makes a great difference, therefore, in the movement of the blood, whether the motions of respiration are performed quietly or forcibly. So long as the

respiration is quiet, each movement of inspiration draws the blood, by a gentle motion, from the whole venous system toward the chest; but as soon as the breathing becomes violent, the forcible expansion of the chest causes a collapse of the veins in its neighborhood, and no longer assists in the circulation of the blood.

There are various accidents, gentlemen, which are liable to happen during surgical operations, in consequence of injury done to the veins. One of these, of course, is hæmorrhage; but this, as a general thing, is the least important. In nearly all cases, venous hæmorrhage is easily controlled, except where a large number of veins have been wounded simultaneously. Compression or ligature is usually quite sufficient to arrest the bleeding. At one time, a great deal of dread was entertained by surgeons with regard to the ligature of veins; it being considered as hazardous, owing to the supposed irritability of these vessels, and their liability to become inflamed after the application of the ligature.

So far as I am aware, this feeling has very much diminished of late years. In regard to my own experience, I have found, as a general thing, in the lower animals, little or no difference in irritability between the arteries and veins. I tie the veins, in an operation, with as little hesitation as I would place the ligature upon an artery, and with no more anticipation of an unfavorable result. And I do not know that, in these animals, I have ever seen unpleasant consequences ensue.

A more dangerous, and still more dreaded, occurrence, which may sometimes happen in operating upon the veins, is the *introduction of air* into the venous system. This accident has received, from time to time, a great deal of attention from practical surgeons. In the early annals of surgery, cases of sudden death during operations were sometimes recorded, the reasons for which were not then understood, but which were afterward supposed to be owing to this cause.

There are one or two remarks which I wish to make at the outset, in regard to this introduction of air into the veins. The accident is not, of itself, so constantly and excessively dangerous as we might be led to suppose. It is often thought that in a surgical operation the slightest admission of air into the veins must be instantly and inevitably fatal; that the smallest quantity of aëriform fluid in the venous system is enough to paralyze the heart or the brain, and put a stop to all the vital operations. This, however, is certainly not the case. We may sometimes introduce a considerable quantity of air into the blood, without producing a fatal, or even an immediately serious effect.

The effect which is produced depends, to a very great degree, not

upon the simple fact that air is introduced, but upon the quantity in which it is introduced, and upon the manner of its introduction. It depends even still more upon the manner of its introduction than upon its quantity. A very small amount may be thrown into the veins of an animal at almost any time, without producing death; and even a large quantity, if thrown in slowly and gradually, may be almost equally harmless. It is only when a considerable quantity is introduced suddenly, that unpleasant consequences follow, and a fatal result almost necessarily produced.

Now, why is it that such a difference should exist in the effects of the same operation, done in two different ways? We shall see the reason for this difference, when we understand the mechanism by which air in the veins acts in producing death.

It is by its mechanical effect, and not by any chemical or poisonous agency, that air, when mixed with the blood, causes death. It is air *in an aëriform, and not in a liquid condition*, that blocks the circulation and paralyzes the heart. The gases of the atmosphere have no injurious property in themselves. In fact, both oxygen and nitrogen, as you already know, are normal ingredients of the blood, and are naturally held in solution in the circulating fluid. Accordingly, if air be introduced into the veins in small quantity, it is immediately dissolved by the blood, and, in that condition, does no harm. If even a large quantity be injected, so slowly that the blood can dissolve it as fast as it is introduced, it produces no bad effect, and passes without injury through the circulation.

But if the air be thrown in abundantly and rapidly, it fails to be dissolved. It then remains mixed with the blood in the form of gaseous bubbles, and interferes with the circulation to such a degree that death is very soon the result.

Now we can very easily see, by exposing one of the veins in this animal, (a cat,) and injecting air, that a small quantity does not immediately or necessarily produce death. I have already uncovered the femoral vein, as it passes up the inside of the thigh, alongside the femoral artery. I have here, also, a syringe which is perfectly airtight; for you see, on dipping the nozzle into a vessel of water, that the slightest pressure on the piston produces an abundant escape of air-bubbles. We can, therefore, use the instrument for the purpose of injecting air into the vein.

I now make an opening in the vein, introduce into it the nozzle of the syringe, and slowly depress the piston to a certain extent. Thus far, you observe, no immediate effect has been produced on the circu-

lation, and yet air in considerable quantity has been introduced into the circulation, for I can hear very distinctly, on listening at the chest, a *churning* sound, which indicates that air is already mixed with the blood in the right cavities of the heart. This churning sound is a very curious phenomenon, and is almost always to be heard when air has been thrown into the veins in considerable quantity. For the air, immediately after its introduction, is carried directly to the right side of the heart, and is there whipped into a minute foam, by the motion of the tendinous cords and valves of the heart. This gives rise to a characteristic sound, like a moist râle, or double souffle, which may be heard through the walls of the chest.

In this instance, the air has been introduced so gently that the quantity which is now in the heart can undoubtedly be disposed of by solution, and therefore will not cause any serious injury. I no longer hear the churning sound of the air in the cardiac cavities, and I presume, therefore, that it has already been nearly or quite dissolved in the blood.

I will now, by means of the same syringe, force into the vein a larger quantity of air, and by a sudden motion; which, I presume, will prove fatal to the animal. I now hear again the churning sound of air in the right ventricle. The heart labors much more than at first, though, you observe, the movements of respiration continue, and the cardiac pulsations are still regular. Now, however, they are diminishing in force, and the movements of respiration, also, are already nearly at an end. You see, therefore, that the rapid introduction of air has proved fatal within a few seconds; while a smaller quantity may be introduced gradually, without any serious effect.

Now let us see what is the mechanism of this accident. How is it that air produces death, when mixed with the blood in an undissolved condition?

The air, when thrown into the veins, as we have seen, is immediately carried to the right side of the heart. It thence passes out by the pulmonary artery and its branches, to the capillaries of the lungs, and fills these vessels with finely-divided aëriform bubbles. But the capillaries present an obstacle to its further passage. The air clings to the internal surface of the minute blood-vessels, and becomes entangled in the capillary plexus. It can pass easily enough through the arteries, and through the veins; but it cannot readily find its way through the capillaries. The vessels of the lungs thus become blocked and obstructed, the blood is cut off from the left side of the heart and the arterial system, and in this way the circulation suddenly comes to an end.

It makes a great difference, therefore, whether we inject the air into an artery or into a vein. If we throw it into an artery, it is arrested in the capillaries of that region of the body alone, and only a part of the circulation becomes obstructed. But if we throw it into a vein, it is at once conducted to the heart, thence carried to the lungs, and the whole vascular system is then deranged, by the stoppage of the pulmonary circulation.

Now, in order to ascertain whether this be really the case, I will make an autopsy of the animal that we have just killed, and see what has become of the air which was injected into the veins. On opening the chest, you see, gentlemen, that the heart still pulsates feebly. The air contained in the right ventricle is distinctly visible through the pericardium, which is still unopened. You observe, also, some bubbles of air in the superior vena cava, into which it has passed by regurgitation from below.

You see, furthermore, that the pericardium is very much distended by the heart. The heart itself is so distended, and fills so completely the pericardial cavity, that it is difficult to pinch up the fibrous membrane with the forceps, and separate it from the surface of the heart. Now, however, I can succeed in cutting open the pericardium, and you see that the heart immediately protrudes through the opening, by a kind of hernia. Everything indicates an unnatural distention of the cardiac cavities.

This distention is owing to the presence of air. On striking the heart with the handle of a scalpel, you observe it returns a tympanitic sound, very similar to that of the stomach, and altogether different from the dull, solid sound of a heart filled with blood. We have, then, air in the superior and inferior vena cava, air in the right auricle, and air in the right ventricle. No doubt, there is air also in the pulmonary artery and its branches. But, in all probability, this air has not passed through the pulmonary circulation, and is not to be found in the left cavities of the heart.

In order to make this certain, however, I will first open the left cavities, and afterward the right.

I now open the left auricle and ventricle; and what escapes? Only a few drops of bright scarlet blood! Here is already, then, a remarkable difference in the appearance of the left cavities from what we saw the other day in the animal killed by stoppage of the respiration. In that case, both the left auricle and the left ventricle were distended, at the moment of death, with dark venous blood. Here, on the contrary, the blood has not been thrown backward upon the heart from

the capillaries, but has been stopped in its passage through the lungs. Accordingly, there is but little blood in the left ventricle, and that little is of the natural arterial color.

You see, furthermore, that there are no bubbles mixed with the blood in the left cavities of the heart. The air, therefore, has not passed through the pulmonary circulation.

I will now open the right auricle and ventricle. Immediately there escapes a large quantity of bright frothy blood, formed of minute bubbles of air intimately mixed with the blood, and beaten up into a foam by the action of the heart. It is this foam which obstructed the capillaries of the lungs, and put an end to the pulmonary circulation.

Now, these are the appearances usually found on opening an animal, killed by injection of air into the veins. Air in the vena cava, air in the right auricle, the right ventricle, and the pulmonary artery; but none in the pulmonary veins, nor in the left cavities of the heart. The ordinary pressure of the circulation is not sufficient to force the air through the blood-vessels of the lungs. Still, this may be effected by a greater amount of pressure. If we inject the air forcibly into the veins, under a steady and continued pressure for thirty or forty seconds, we may overcome the resistance of the capillaries, and compel some of the air to pass through them. Under these circumstances, air-bubbles may be also found, in small quantity, in the left side of the heart.

I have myself succeeded, in this way, in forcing air through the capillaries of the intestine, by insufflation into the mesenteric arteries. The air passed by the portal vein into the liver, and immediately appeared in minute bubbles in the interlobular spaces, giving a pale, mottled appearance to the surface of the organ.

The animal was allowed to remain alive for a few minutes, and during this time the appearance of air in the interlobular spaces disappeared altogether. The animal was then killed, and air was found in the veins of the liver, and even in the right side of the heart and the pulmonary artery.

In another instance, air was blown very forcibly into the mesenteric veins of a cat, and appeared, after about five minutes, in the right cavities of the heart.

- In a third case, however, though the air was thrown with some force into the mesenteric artery, it did not appear afterward, either in the interlobular spaces of the liver, or in the right cavities of the heart.

It is the capillary vessels, therefore, that create an obstacle to the passage of air in the blood. Usually this obstacle is complete; but sometimes, if the pressure be unusually great, or if the animal survives

a certain time, a little of the air may pass through the lungs, and appear in the left side of the heart.

Now let us see, gentlemen, how it is that air gains access to the veins in surgical operations. There are two modes in which this accident may occur. The first is by the careless use of the syringe in making injections of medicinal substances into the veins. You are aware that this method of administering remedies has been suggested, and occasionally practiced, in certain morbid conditions. The transfusion of blood has also been resorted to in cases of extreme exhaustion from hæmorrhage. In cholera, saline solutions have been injected into the veins, for the purpose of restoring to the blood the fluids which it has lost by diarrhœa.

In these cases, if the ordinary syringe be used to make the injection, a little air is very apt to be drawn into it, together with the liquid solution, when the syringe is filled; and unless particular care be taken, some of this air will be thrown into the veins, either at the beginning or at the end of the injection. In order to avoid this danger, the syringe, before introducing it into the vein, should always be held for a moment in a vertical position, with the nozzle pointing upward. The air which it contains will thus float upward toward the opening of the tube, and by gently pressing the piston all the air can be driven out in advance of the liquid. The nozzle of the syringe should then be introduced into the vein, taking care meanwhile to maintain a continuous pressure upon the piston, so as to keep the point of the instrument filled with liquid. When once the nozzle is fairly secured in the vein, the injection may then be made without fear.

But there is another mode in which air finds its way into the blood in surgical operations, which cannot be so easily guarded against; that is the accidental or *spontaneous* introduction of air into the veins. In these cases the air enters, of itself, into veins which are wounded in the ordinary way, in the course of surgical operations. Let us see how this accident happens, and what precautions are required to guard against it.

It has been known for many years that the wounding of veins in *certain parts of the body* is attended with risk of the introduction of air. The first case of this kind, in which the nature of the accident was recognized, happened in the year 1818, at the Hospital St. Antoine, in Paris, under the care of M. Beauchêne. A young man entered the hospital for a tumor, situated at the top of the right shoulder, and extending from the spine of the scapula to the superior border of the second rib. The tumor involved a portion of the clavicle; and in

the operation for its removal, as this bone was found to be diseased, it was determined that a part of it should be exsected. The clavicle was accordingly sawn through, near its articulation with the sternum. It was then lifted out of its bed, and everted, and the dissection continued beneath it, for the purpose of detaching it from the neighboring parts. At this moment a hissing sound was heard, like that of air penetrating into the pleural cavity. The patient, who had hitherto borne the operation remarkably well, immediately grew pale and faint; the pulse became rapid, hard, and irregular, and there were convulsive movements of the limbs. The hissing sound was again heard, during some manipulations which were employed about the wound, and notwithstanding the use of every means for resuscitation, the patient was dead at the end of fifteen minutes.

At the autopsy, it was found that a portion of the external jugular vein had been cut away, just above its junction with the right subclavian. Through this opening the air had introduced itself into the circulatory system, and had destroyed life in the manner which I have already described.

Since that time, other similar instances have occurred in the practice of Dupuytren, Delpech, Castara, Roux, Bouley, and others. Dr. John C. Warren had a case, which he regarded of the same kind, in 1830, and another in 1831; and at the present day, the possibility of such an occurrence is acknowledged by all practiced surgeons. In the case of Delpech, the body was examined next day, after having been submerged in a large vessel of water. The right side of the heart, which was very much distended, was opened beneath the surface of the water, and the gaseous bubbles which escaped were collected in bell-glasses. They were afterward examined, and found to consist of atmospheric air.

In the case of M. Roux, the gases from the right ventricle were collected, and examined in a similar way, and were also found to consist of atmospheric air.

Now, there are various facts in relation to this accident, which it is necessary to bear in mind. In the first place, spontaneous introduction of air into the veins will not take place, as a general thing, except *in the immediate neighborhood of the chest*. In all the cases which I have cited, the operations in which the veins were wounded were done upon the neck, the shoulder, or the axilla. Most of them were for the removal of tumors in these situations. The introduction of air into a wounded vein, therefore, is liable to take place just in those situations *where the veins are emptied by the movements of inspira-*

tion. At a distance from the chest, this accident does not happen, because at that point there is no violent suction force exerted upon the vessel; and if there were, the walls of the vein would collapse beyond the wound, rather than allow the air to pass into its cavity. But if a vein be opened in the axilla, at the upper part of the chest, or in the lower part of the neck, then, at the movement of inspiration, when the blood is violently drawn toward the chest, the air is also drawn into the opening of the vein.

Amussat, who has written an extremely valuable memoir on this subject, insists particularly upon the fact that the introduction of air is liable to take place only in the region which I have mentioned; and he calls it, therefore, the "dangerous region." For, while the veins may be wounded with impunity elsewhere, the division in that neighborhood is always attended with serious risk.

But there are various circumstances which increase this risk, even in the "dangerous region" of the neck and shoulder. One of these is, anything that tends to *hold the vein open*, and thus to prevent the collapse of its walls. If the lips of the wounded vein be held apart by the blades of a forceps, air is much more likely to enter than if they were allowed to collapse. The history of the surgical accidents of this nature, which have occurred thus far, shows that this cause had a great deal to do with producing the result. In nearly all the recorded instances, the wounded vein was either surrounded by a tumor or adherent to its surface; and during the operation the tumor was forcibly lifted or drawn away from its bed, thus stretching the vein, and preventing its collapse. In Beauchêne's case, the introduction of air happened while the clavicle was being drawn outward, and the fibrous tissues about the vein thus put upon the stretch. This should always be regarded, therefore, as a dangerous proceeding, when veins are liable to be wounded in the operation.

If the parts about the vein be infiltrated with cancerous deposit, or by chronic inflammation, this would also render the accident more liable to happen; and might even extend the limits of the dangerous region to a considerable distance from the chest. Every one has observed, in dissecting a limb affected with chronic inflammation of the joint, for example, that the veins running through the infiltrated and hardened tissues have lost their power of collapse; and that they stand open, like arteries, after being divided. This is the condition known by the French as *canalization* of the veins. If such a condition of the parts were to extend upward from the limb, as far as the chest, the influence of inspiration on the veins might be felt throughout the entire intervening distance.

We must remember, furthermore, that air is drawn into the veins only by a forced and violent inspiration. No doubt, the accident is more likely to happen during an operation done without ether, than where a patient is under the influence of an anæsthetic; for while the respiration is calm and equable, the suction force exerted upon the veins, as we have seen, is easily compensated by the flow of blood from behind. But when a man is suffering pain, he is apt to take quick, forced, and sudden inspirations, and it is in such inspirations that air is most likely to be drawn into the vein, and thus become mingled with the blood.

Another circumstance that increases the danger of a fatal result, is an exhausted condition of the patient. From what I have already said, you will understand that the introduction of a small quantity of air into the veins does not necessarily produce death. It may be disposed of by solution, either at once or gradually. The threatening symptoms first produced may pass off, and the circulation return to its ordinary condition. I have often been surprised to see how much air may be blown into the veins of dogs or cats, without immediately causing death.

This has led to the belief, in some instances, that a small quantity of air in the veins was much more liable to be fatal in man, than in the lower animals. But it is the opinion of Amussat that the accident is much more apt to prove fatal when the patient is already exhausted by disease, or by the pain of a long operation. Then, a slight obstruction of the pulmonary circulation will be sufficient to cause death, while it might otherwise have been overcome, after a time, by the force of the heart's action.

At all events, there have been cases of recovery after the spontaneous introduction of air, even in the human subject. In one of Dr. Warren's patients, the most alarming symptoms continued for thirty minutes; but the patient nevertheless recovered, and the operation was afterward successfully finished. Other instances of recovery have occurred in the hands of Clémot, of Delaporte, of Amussat, of Dr. Mussey, and Dr. Mott. In a case which happened to Malgaigne, the patient recovered from the immediate effects of the accident, but died four days afterward, by an accumulation of frothy mucus in the bronchial tubes.

Now, in regard to the *symptoms* which accompany this accident, there is a great similarity between the different cases. At the moment when the air finds entrance into the vein, a peculiar noise is heard, like the passage of the wind through a small opening, or of air-

bubbles through a liquid. It is spoken of, by different observers, as a "hissing," "whistling," "lapping," or "gurgling" noise. In several instances, it has been compared to the sound of air entering a partially exhausted receiver. It has been mistaken, once or twice, for the passage of air into the pleural cavity; and in Beauchêne's case it was supposed, until after the autopsy, that the pleura had actually been opened. Sometimes the sound occurs but once; sometimes it is repeated at several short intervals, as the air is drawn in by successive inspirations.

At the same time with the occurrence of this sound, bubbles of air are often *seen* mixed with the blood in the wound, or regurgitating from the vein at the moment of expiration. In the case of M. Ulrich, frothy blood was discharged from the opening in the vein. In one of Dr. Warren's cases, bubbles of air appeared in the blood at the wound. M. Rigaud himself saw the air enter the vein and displace the liquid; and in Dr. Mussey's case, air-bubbles were also observed to pass into the vein. Most frequently, however, the air gains entrance too suddenly to be actually seen by the observer, and the hissing or gurgling sound is the only thing that attracts his notice.

It is curious, that the patient himself is almost always conscious that some terrible and threatening accident has occurred. He sometimes even feels that the trouble is located in the heart or in the vessels. In Beauchêne's case, the patient made a singularly striking exclamation. He cried out, as soon as the air had penetrated the vein, "*My blood is falling into my heart! I am a dead man.*" (*Mon sang tombe dans mon cœur! Je suis mort.*) In one of Dr. Warren's cases, the patient called out suddenly, "*I am sick!*" Delaporte's patient exclaimed, "*Ah! my windpipe is cut! I am lost!*" In the case of M. Amussat, the patient, who was a woman, survived the accident. She was afterward interrogated by the surgeon, as to whether the difficulty appeared to her like a fainting-fit. She replied "No;" that "in a fainting-fit, the trouble comes from above; but in that, the trouble came from below."

Very often, instead of saying anything, the patient utters a cry of distress, and becomes pale, insensible, and convulsed. There is frequently a similar cry, with convulsions, when air is blown into the veins of the lower animals.

It is unnecessary for me to say, gentlemen, that when air is introduced spontaneously into the veins, in this way, in surgical operations, it destroys life in precisely the same manner as when it is blown in artificially, for purposes of experiment. It passes to the right cavi-

ties of the heart, blocks up the vessels of the lungs, and stops the pulmonary circulation. It is accordingly found in the right auricle and ventricle, after death, and is seen also in greater or less abundance in the neighboring veins.

Furthermore, this accident may be followed by recovery, in the human subject, as well as in the lower animals. Amussat has collected, in his monograph, twelve cases in which death was not produced. In three of these instances, though the sound of air entering the vein was perfectly distinct, no injurious result followed, and the patient did not even know that he was in danger. In the other nine cases, however, the patient suffered for a time very alarming symptoms, which afterward passed off. No doubt the fatal result depends, in the human subject also, on the quantity of air introduced, and the exhausted condition of the patient.

It is plain, therefore, what ought to be done when air happens to have been introduced into a vein in a surgical operation. As soon as the sound is heard which indicates the passage of air, the opening in the vein should be at once closed by the finger of the operator, and the vessel secured by a ligature as soon as possible. For the danger does not cease with the first ingress of air; at any succeeding inspiration a new quantity may be drawn into the vein; and we have already seen that the risk of a fatal result is in direct proportion to the amount of air which gains access to the vascular system.

Attempts have occasionally been made to extract the air from the veins, after its admission, by introducing a syringe and withdrawing the piston; but the success attending these efforts has not been sufficient to encourage their repetition.

A few words, gentlemen, with regard to the *post-mortem appearances* in fatal cases of this sort, and the means of distinguishing them from others of a different nature. It is sometimes a matter of doubt whether a patient has perished from the introduction of air into the veins, or from some other cause. Now, how are we to determine this point?

In the first place, it is important to know that air may be introduced into the veins *after death*, and during the progress of the autopsy. You will hardly ever make a post-mortem examination of the head, for example, without finding air-bubbles in the superficial veins of the cerebral hemispheres. After sawing through the skull, you lift the calvaria forcibly upward, cutting or tearing away the attachments of the dura mater and the longitudinal sinus. It is at this moment that air is introduced into the longitudinal sinus and the

veins which open into it. It can afterward be seen in the vessels ramifying over the surface of the cerebral hemispheres.

The same thing often happens when you open the chest. While raising the sternum, you draw the air into the superior vena cava and the subclavian veins, through any opening which may have been made in them; and when the chest is fairly opened, you may see the air-bubbles, sometimes in considerable quantity, in the large veins in its interior. The mechanism of the introduction of the air, in both these cases, is the same as when it happens during life, viz., by the forcible lifting of a bony frame-work or inclosure, by which the air is sucked or drawn in from the exterior. It may be drawn into the abdominal veins, also, in the same way, if the manipulations used are such as to produce a similar effect.

How are we to know, therefore, when we find air in the veins in the interior of the body, whether it has been introduced during life, or accidentally gained admission after death?

You can determine this point by observing the physical condition of the air and of the blood. When air is drawn into the veins during an autopsy, it is present merely in the form of large bubbles—mostly in the superior and inferior vena cava, in the neighborhood of the heart. Even if drawn into the cavity of the heart itself, it presents the same appearance, having been mechanically introduced after the vital actions had ceased. But when it is introduced during life, while the circulation is going on, it is carried, as I have already told you, directly to the right cavities of the heart; and there, by the movements of the organ, it is whipped up into a bloody froth, or foam, consisting of minute air-bubbles, intimately mixed and entangled with the blood. *It is the presence of this bloody foam in the right cavities of the heart* which shows that the introduction of the air has taken place during life. This ultimate mixture of the air with the blood is caused only by the movements of the living organ; and there is no other appearance that can be considered as conclusive in regard to the nature of the accident.

There is one other cause, however, which may give rise to the appearance of air-bubbles in the blood after death. That is, the process of putrefaction. If the autopsy be delayed for some days after death, if the weather be warm and the body exposed, putrefactive gases may be developed in the blood, and may show themselves in the form of air-bubbles. But in such a case, the odor of decomposition in the body, as well as other marks of putrefactive change, would be sufficient to indicate the real nature of the appearances. To prevent all mistake,

however, it would be well, in doubtful cases, to collect the gases found in the blood and to analyze them, as was done by Roux and Delpech, in the instances which I have already mentioned.

A very ingenious rule is given by Amussat for distinguishing the gases produced by putrefaction, from air which has been introduced into the heart during life. When the heart is distended, he says, with air introduced during life, the cadaveric rigidity of the cardiac fibres comes on afterward; and then, even if you allow the confined air to escape, the organ still preserves its expanded form. But the distention of the heart by putrefactive gases is accompanied with a relaxed condition of its fibres, and on puncturing it, the organ immediately collapses, owing to the flaccid condition of its muscular parietes.

In conclusion, gentlemen, I have to mention to you one very curious way in which the introduction of air into the vessels has been thought to take place; that is, *by the veins of the uterus after parturition*.

In Amussat's monograph on this subject, a number of cases are mentioned, in which sudden death occurred in young females, after delivery, without any apparent cause; and the author expresses his conviction that, in some of them at least, the death was owing to the introduction of air into the uterine veins. A similar instance is quoted by Milne Edwards, in his book on Physiology, from Lionet. Dr. J. R. Cormack wrote a paper on the same subject, in 1850, which was published in the *Edinburgh Monthly Journal of Medical Science*, for that year. Dr. Cormack maintains the possibility of air entering the uterine veins after delivery, and quotes cases from Dr. Meigs, Dr. Lever, and Dr. Simpson, to show that it has occasionally happened. Dr. Simpson explains it by supposing that the uterus itself, by alternately relaxing and contracting, *forces* the air into the open mouths of its own vessels.

But, on looking over the whole history of this subject, I must acknowledge that it appears exceedingly doubtful whether such an accident ever actually happened in the human subject. I am not aware that there is a single case on record in which the evidence was conclusive. In most of the cases there was, at the same time, more or less hæmorrhage, to which the death might be attributed. In many of them there was no post-mortem examination. In some, air was found in the veins of the uterus and abdomen; but in none of them was the frothy mixture of blood and air found in the right cavities of the heart, which can alone show conclusively that the introduction of the air took place during life. On the whole, therefore, it is very uncertain

whether such a spontaneous introduction of air, after delivery, has ever been the cause of death in the human female.

A very remarkable case, however, occurred at Albany, in this State, a few months ago, in which it seems certain that air was really introduced into the uterine veins, though by a very different mechanism from that suggested by Dr. Simpson. The case happened under the observation of Dr. John Swinburne, who published an account of it in the *Philadelphia Medical and Surgical Reporter*, for April 23d, 1859. The patient in this instance was an unmarried woman, who was residing at the house of an abortionist, (also a female,) for the purpose of having a miscarriage induced. An attempt was made to rupture the membranes, by introducing into the uterus a gutta-percha catheter; and, according to the account given by the woman, no sooner was it introduced into the uterus, than the patient fell back, as she supposed, in a fainting-fit. Finding that the fainting-fit did not pass off, the woman became alarmed and sent for a doctor, who immediately repaired to the house and found that the patient was dead.

Dr. Swinburne, next day, made an examination of the body, and found that the sinuses of the uterus, the jugular veins, and even the superficial veins of the body, contained air. The right cavities of the heart were "distended with a spumous mixture of blood and air." The uterus contained a healthy, five-months foetus. The membranes were unbroken, but were separated from the uterine wall externally, on the right side, together with a portion of the placenta; and there was a perforation at this spot, leading into the uterine sinuses, about two inches distant from the cervix.

The air found in these vessels could not have been the result of decomposition, since the affair happened in the month of March, and the autopsy was made fourteen hours after death.

Dr. S. expresses the opinion, and, I think, correctly, that in this case the air was forcibly *blown in* through the catheter, with the intention of producing separation of the membranes. The membranes being partially separated in this way, and the uterine veins passing to the placenta, being opened, but not quite torn across, air might readily be forced into the veins by insufflation, and might so produce instantaneous death. Or, the end of the instrument may have penetrated one of the uterine sinuses, and thus may have introduced the air directly into the vascular system.

Lectures on Displacements of the Uterus. By E. R. PEASLEE, M.D., LL.D., Prof. of Obstetrics and Diseases of Women and Children in the New York Medical College.

(Continued from last No. of the MONTHLY.)

LECTURE IV.

GENTLEMEN—To-day I have to speak of the symptoms, the diagnosis, and the treatment of prolapsus uteri.

It is an important practical fact that the first degree of prolapsus is often productive of far more suffering than the third even. Sometimes the malaise is very great during the first degree, but mainly subsides when the second is attained, since the cervix then rests on the perineum, and the strain is taken off the uterine ligaments. Much, however, depends on the social condition of patients affected by this displacement. The lower classes suffer far less from the same degree of descent.

There are few, if any, of the rational symptoms which are distinctive of prolapsus; the physical signs alone being conclusive. And many patients who have not the least degree of prolapsus infer very positively from their sensations that they have this displacement, and their medical adviser may be equally deceived till an internal examination is made. I shall, therefore, pass rapidly over the rational signs of this displacement.

It is, of course, desirable to detect the existence of prolapsus while still in the incipient or first degree. There is reason to believe that this stage often exists a long time, causing great suffering meanwhile; but remains undetected, because the patient does not suspect the cause, and specify the early symptoms. But it is while in this state that prolapsus is most promptly and certainly cured; and when it has become complete, (3d stage) the patient herself has already made out her own case. I shall, therefore, speak more particularly of the rational symptoms of the first and second stages.

1. The most *characteristic* rational symptom of the first stages of prolapsus, is found in the fact that the unpleasant pelvic sensations are usually at once removed, or at least much relieved, when the patient lies down; again to return when she rises, and to be increased by standing or walking.

I shall also specify the most prominent of the rational symptoms produced by this displacement, and refer you for the sympathetic or indirect symptoms, common to this and the other classes of displacements, to the preceding lecture. I should, however, premise that the functions of the uterus are usually not essentially deranged in the first two degrees of prolapsus. Leucorrhœa, perhaps, always exists; but men-

struation generally continues regular, and does not become either decidedly painful or menorrhagic. Conception also occurs in these two stages of prolapsus, and sometimes even in the third degree. Churchill quotes a case of even irreducible prolapse in which pregnancy occurred. On the other hand, either degree of prolapse may become the cause of sterility.

Referring to my first lecture for the direct rational symptoms common to the various uterine displacements, I call particular attention here to the following as being most frequently met with in the first degrees of prolapsus. A "bearing-down" sensation, a sense of dragging from the umbilicus, (from tension of the urachus,) or from the loins; a feeling of weight in the anus, increased while standing, and usually ascribed by the patient to piles; pain in the back, extending to the groins; irritation of the bladder and difficult or frequent micturition; and rectal tenesmus.

Very rarely an acute sensibility of the whole surface of the abdomen, simulating peritonitis, occurs in the first stage of prolapsus; and which disappears as soon as the displacement is rectified. Dr. Meigs has seen thirty cases of this kind.

In the third degree of prolapse there is difficulty in micturition and defecation. Sometimes neither of these acts can be effected till the patient lies down, and returns the protruded mass. Retention of the urine, necessitating the use of the catheter, is a common symptom in irreducible cases.

2. A *vaginal* examination should be made in all doubtful cases, while the patient is standing. Cases indeed occur in which the rational symptoms clearly point to prolapsus, but in which not the least descent of the womb can be certainly ascertained, even while the patient is in the erect position. But on raising the womb slightly on the tip of the finger all these symptoms disappear at once, to return again the instant the support is withdrawn.

In the *first* degree of prolapsus—exclusive of the class of cases just alluded to—the vaginal exploration shows the os uteri to be too low in the vagina, and usually in contact with its posterior wall. In the *second* degree the os rests on the perineum, or even presents between the labia; the fundus being now retroverted, as already explained, (Lect. 3d, p. 433.) In both these degrees, pressure applied in the proper direction usually at once restores the uterus to its normal position.

In the *third* degree, or complete prolapsus, the external tumor is somewhat sensitive, firm, and usually fluctuating anteriorly; being six

to ten inches long, and sometimes hanging half way down the thighs. It is sometimes of an oval or globular form, but is usually conical, the uterus forming its apex below, while its base fills the os externum above, and the labia extend along its sides. In cases of long standing, however, the lower extremity of the tumor becomes the largest. But even when the extruded mass attains to its largest size, the uterus itself may not be at all enlarged. The os uteri is, of course, *always found at the lower extremity of the tumor*, presenting a rounded or semi-lunar form, or being sometimes so contracted that a pin will scarcely enter it, (Bochmer.) There is, except during the menstrual period, a constant, and often very abundant, flow from it of mucus, or of pus; and the surface of the tumor, at first presenting the natural color of the mucous membrane, soon becomes dark red, or brown, and is inflamed or ulcerated, or even incrustated with saline deposits. Finally, however, the membrane may become dry, and more and more resemble the skin. The cervix uteri also sometimes becomes very much elongated.

Diagnosis of Prolapsus.—There are no rational signs which will certainly distinguish the first two degrees of prolapsus from the other classes of uterine displacements, as we have seen. Usually, however, the feeling of weight in the anus, and of pressure on the bladder, and the strangury, are at once relieved on lying down; which is not the case in anterior and posterior displacements. But the vaginal exploration is conclusive.

Elongation of the cervix has been mistaken for the *first two degrees* of prolapsus; but in that condition the vagina still retains its normal length and firmness. This is the fact also in cases of polypus uteri, partial inversion of that organ, and tumors in the pelvis—all of which have been mistaken for prolapsus. Besides, in these affections the os uteri is not to be felt at the lower extremity of the tumor; and in partial inversion we have the characteristic repeated floodings.

The *third* degree of prolapsus may be mistaken for polypus uteri, complete inversion of that organ, and prolapse of the vagina.

But polypus is not sensitive, has nothing corresponding to the os uteri at its lower extremity, is not reducible, and presents no fluctuation anteriorly, as is the case with reducible prolapse. Moreover, the vagina is not shortened in case of polypus. Sometimes a fissure exists at the lower end of a polypus; but this is easily distinguished from the os uteri by the attempt to pass a probe.

Complete inversion is known by the repeated floodings, the constitutional disturbance, and the absence of the os uteri at the lower extremity of the tumor.

Prolapse of the vagina is a less solid tumor than prolapsus uteri; and here again the os uteri is absent.

Effects of Prolapsus, and its Terminations.—If no treatment is resorted to, the first and second degrees of prolapse finally lead to so many sympathetic affections, as explained in the preceding lecture, in addition to the local suffering and the exhausting leucorrhœal discharge, that the health becomes completely deranged, and the patient succumbs; or she may perish in consequence of an inflammation excited by the malposition of the organs within the pelvis.

The third degree of prolapsus may prove fatal from the constitutional irritation consequent on the ulceration of, and the discharge from the extruded mass, or from retention of urine—and especially if it be irreducible.

A fatal termination of prolapsus is, however, quite uncommon. The patient most frequently drags on a miserable existence till carried off by some other disease. Gangrene may occur in complete prolapsus, and the whole uterus slough away, and the patient still recover. And women who suffer constantly from a complete prolapsus, so long as they continue to menstruate, and have, perhaps, been bedridden for years, sometimes experience only an inconvenience from this displacement after menstruation finally ceases, and again find themselves able to stand and walk without much difficulty.

It should also be added that prolapsus of the first two degrees is generally entirely relieved by pregnancy, after the fourth month has passed. The same may also be the case with complete prolapsus, if it remain reducible. And in all cases we may expect that the recurrence of prolapse after parturition may be prevented by judicious management. The occurrence of pregnancy is quite probable so long as even complete prolapse is reducible, and it is possible though the displacement be irreducible; but in the first and second degrees, conception is sometimes prevented by the close contact of the os uteri with the vaginal wall, and hence sterility is an effect of this displacement, as before noted.

If pregnancy continue through the fourth month, it is likely to go on to the full term. This has, indeed, occurred in a case of prolapsus which was irreducible from the period of conception till after parturition had taken place.

Complications of Prolapsus.—The prolapsed uterus remaining in a state of hyperæmia, sometimes becomes hypertrophied to twice its normal size; or the cervix may become elongated to twice its normal length. In complete prolapsus, the bladder and rectum may come

into contact above the extruded uterus, and adhesions between them, or between the uterus and contiguous parts, may form;* in which case the prolapsus becomes of course irreducible.

Prolapsus may also be complicated with any of its direct causes, (intra- or extra-uterine tumors, inflammation, &c., &c.,) specified in the preceding lecture; and some of these may render it irreducible and incurable. It is also frequently attended by ovaritis; and which requires the treatment appropriate to it in other conditions.

Pregnancy is a not uncommon complication of prolapse, and there is no very great tendency in these cases to miscarriage after the fourth month is passed, as has been already said. The prolapsed uterus can usually be reduced up to the fourth month; and in one instance Giroud effected the reduction but six days before delivery. In some instances, however, the uterus cannot be reduced after the first month of pregnancy.

Prognosis of Prolapsus.—We may expect to afford great relief in all cases of prolapsus; and, as a general rule, if we can make the circumstances of the patient accord with our directions, we may expect a complete cure. The prognosis of uncomplicated prolapsus may be more positively expressed in a favorable manner, than that of any other uterine displacement; and, perhaps, no case should, in the most favorable circumstances, be pronounced incurable. The most unpromising and obstinate forms of irreducible prolapsus have yielded to persevering treatment.

In married patients, however, of the lower classes, circumstances very often interfere with an entire recovery, unless pregnancy supervenes.

In case of complications with prolapsus, the prognosis is of course based on the probability of removing such complications, or of neutralizing their agency in producing or perpetuating the uterine displacement.

Treatment of Prolapsus.—Prolapsus accidentally discovered, and producing no symptoms—for such cases occur—requires no treatment. But in all cases of moment, local treatment is required; and in those of long standing, general and moral treatment is also necessary.

I. The *local* treatment is of the first importance in all cases, as has already been shown (Lect. 3d, p. 427) the indications being:

1. To remove the cause, if possible, of the displacement;
2. To replace the uterus;

*Baillie, *Morb. Anat.* 4th Ed. p. 419.

3. To maintain it in position by appropriate mechanical appliances, if the natural supports are not sufficient, or until they are sufficient, to maintain it. Cases occur in which the relaxation of the vagina may be overcome in part or entirely by the use of astringent injections by the patient herself, after the uterus is replaced; and in all cases if there be no inflammation or congestion of the latter, the reposition should be at once effected, and then the applications required to retain it *in situ* should be made.

1. The removable causes of prolapsus are (Lect. 3, p. 435.): congestion (or inflammation), hypertrophy, polypus, and arrested involution of the uterus itself; and ascites and ovarian dropsy. And, as a general rule, either of these should be removed before the uterus is replaced. There would also be but very few exceptions to it in the case of accompanying polypus and the two forms of dropsy; but in the case of congestion, inflammation, hypertrophy, or arrested involution, the treatment instituted to remove these conditions will often be more promptly effectual if the uterus is first replaced, and retained *in situ*, so far as a recumbent position will accomplish this; but no *pessary* can be used, as we have seen, while there is congestion or inflammation (Lect. 2, p. 257.)

I shall not here speak of the methods of removing uterine polypi, and dropsy, either ovarian or abdominal, as I have discussed these topics in another connection. The most common complications are, congestion or inflammation of the cervix, or of the entire uterus, and hypertrophy of the cervix. Nor will I here dwell upon the treatment of these conditions. You remember congestion and inflammation are treated mainly by rest in the recumbent position, leeches to, or free scarifications of, the cervix, saline laxatives, vaginal injections of cold flaxseed or slippery elm infusions, several times daily; the hip bath at night, with an appropriate regimen; while hypertrophy is removed by the tinct. Iodine, the potassa cum calce, the acid nitrate of mercury, or the actual cautery.

In chronic cases, however, in which the general health is already failing, it is a matter of the utmost importance to avoid confining the patient to her apartment, or, indeed, within doors, if this can possibly be avoided. In such cases, therefore, you may return the uterus from time to time, while resorting to the above-mentioned means, and keep it in place for a few hours by a medicated pessary, while the patient sits up, or even rides out, if this be expedient. A mass of lint or cotton, of the size, when pretty firmly compressed, of a hen's egg, or larger, completely saturated with a mucilage of gum-Arabic

(or flaxseed infusion,) have been found to answer this purpose well. And while the treatment for the removal of hypertrophy of the cervix is being employed, we may often introduce a pessary and allow the patient to walk about, without retarding the cure.

If ulceration coexist with prolapsus, it may also receive attention after the congestion is removed and the uterus replaced; the application of the nit. Argenti once in six or seven days usually being all the treatment required for its removal. Ulceration will, however, often at once disappear after the malposition is removed, and treatment promises nothing so long as congestion or inflammation persists.

2. Having fulfilled the first indication of the treatment, we may proceed to replace the uterus. In the first and second degrees of prolapsus this is usually at once accomplished by the pressure of the tip of the index finger, carried in the proper direction, while the patient lies upon the back.

In some cases, however, the uterus, falling down about one-half the length of the vagina, becomes fixed to such an extent, that no slight or safe amount of pressure can dislodge it; or, in other words, the prolapse becomes practically irreducible. In such a case, the globe pessary, of a proper size, may be found of great value. If there be space for the introduction of a little more than one-half of the instrument, the constant action of the sphincter vaginæ upon the portion which at first protrudes between the labia, will gradually carry the instrument into the vagina, and the uterus upward, before it, to its normal position. Of course, the patient is to maintain the horizontal position after the instrument is applied, and avoid every effort; and from one to three days may be required to accomplish the complete replacement. Dr. Meigs mentions a case which was relieved in this way within 24 hours, by a globe pessary $1\frac{1}{4}$ inch in diameter.*

In cases of the *third* degree of prolapsus, the uterus can usually be returned to its normal position in the following manner: the patient lying on the back with the pelvis elevated, apply pressure with the thumb and finger (previously well oiled) to the lowest and central part of the mass, (the cervix uteri,) and endeavor to carry this portion upward in the direction of the axis of the whole mass. The patient must, of course, avoid making any effort during the reposition, and after it is effected, and must still retain the horizontal position. If the tumor is swollen and tender, leeching, and perhaps bloodletting

* Woman and her Diseases, p. 203.

also, or deep incisions, may be necessitated before reduction is attempted. Sometimes the continual pressure of a bandage has been used with final success. Reposition has been in some cases effected by judicious management, after the mass has remained in an irreducible state for years; and we should never despair, in an uncomplicated case, of final success. If there be calculi in the bladder, they should be removed before the reduction is attempted.

Sometimes great distress is produced by the reposition of the uterus. If this continue, under the influence of appropriate anodynes, the mass should be allowed again to extrude and the reduction be deferred to another time. Adhesions existing, may, on reduction of the mass, expose the patient to all the dangers of strangulated hernia.

3. We now come to the third indication of the local treatment, viz., the application of a proper mechanical support to retain the uterus in place. We often meet with cases in which the uterus remains in place after the removal of the cause of the descent, as explained under the first indication, without the aid of any mechanical support. Or an astringent medicated pessary worn for a few days, may be all that is required—as a mass of lint or cotton wet in a solution of tannin (3j to aquæ fʒvi.) In cases where there is merely relaxation of the vagina, without any tenderness or congestion of either that canal or the uterus, I have often effected a cure in a few weeks by the application once in 4 to 6 days, through the speculum, of one-half teaspoonful of tannic acid, and then a mass of dry cotton large enough to somewhat distend the vagina, and which remains there till removed for the next application. The cold hip bath at night is also useful in these cases. Meantime the patient walks or rides out daily.

But in most cases of long-standing prolapsus, a mechanical support is constantly required for several weeks or months; and hence a pessary becomes the appropriate instrument. I have specified the conditions in which pessaries may be applied, and have given the rules for their management in the second lecture (p. 257); and will not here repeat them. I have also there given my reasons for preferring the steel spring covered with gutta percha, or the spring of pure tin, in almost all cases of prolapsus.

The introduction of the pessary is effected with the greatest facility while the patient lies on the back; and the steel spring covered with gutta percha is introduced with the least pain, and usually produces the least subsequent irritation.

I shall not, therefore, be understood by any means to recommend a

pessary in every case of prolapsus. I agree with Dr. West* that a pessary may be neither necessary nor suitable—

1. In slight cases of prolapsus.
2. When the descent, still comparatively recent, is due to the persistence of the puerperal state of hypertrophy (or arrested involution after parturition.)
3. When uterine disease of whatever kind was the cause of the displacement, and still demands treatment.
4. I also add that we must hesitate to use a pessary in case of a pregnant patient, lest it induce a miscarriage.

If for any reason a pessary cannot be borne, and the patient must still be standing and walking daily, the pressure of a pad upon the perineum by means of an appropriate bandage, as recommended by Dr. Hamilton, may secure great relief as a palliative measure for the time being.

After the pessary is applied, the patient should use an astringent vaginal injection at night (alum 3j to 3iv, or tannic acid 3j to 3ij, to water Oj;) and an injection of water at the temperature of her apartment, in the morning. Some of the other astringents mentioned in the second lecture may be substituted for these; but if there be heat or tenderness of the vagina or of the cervix uteri, the acetate of lead, (3j to 3ij, to water, or mucilage Oj,) is preferable, I think, to all the rest.

The pessary should be removed once in two weeks or less, in order to examine and cleanse it, and whenever a smaller one will answer instead, it is to be substituted. In cases of complete prolapsus, an instrument three inches in diameter, and very strong, is usually at first required.

On removing a pessary, the patient should be made aware that she will, for a time, feel a need of its support; this sensation being generally complained of on its removal, whether the instrument is longer required or not.

How long should a pessary be worn, is a question not easily answered in definite terms. Several months at least, in chronic cases, and especially if the patient is past the meridian of life, and has had several children. We can know when it can be dispensed with, only on ascertaining the effects of its removal for a day or two. Pessaries have been found beneficial, and indispensable, for years in succession; but we may hope to diminish such instances to a very small number by judicious treatment, except when some incurable complication co-exists.

* Lectures on Diseases of Women.

On discontinuing the use of the ring pessary, a small astringent medicated pessary, as before described, or a little muslin bag (a sachet,) filled with tannic acid, or powdered nutgalls, may be used for a time instead. These last can be introduced at night, and also removed in the morning, by the patient herself; if a thread be attached to the sachet previously to its introduction. Astringent vaginal suppositories also, are a good substitute for the sachet just described, for which, the following formula answers well—or the butter of cocoa may be combined with the astringent substance:

R.—Tannic acid, ℥iiss., or alum, ʒij, or acetat. lead, ʒss.
 Ceræ albæ, ʒij.
 Axungiaë, ʒvi.

Mix—make iv. suppositories. One to be applied every second or third night.

Such is the local treatment of the three degrees of prolapsus uteri. Certain modifications are, however, required by certain complications. If, in the cases of complete prolapsus, the uterus becomes too heavy from a tumor in its own substance, or is so pressed downward by an extra-uterine tumor, that the pessary I have recommended is not sufficient to sustain it in place, a stem pessary must be used instead. It is in this class of cases that the peculiar value of this form of pessary becomes apparent; and to this class I would restrict its use. In cases of the first and second degrees of prolapsus, complicated with rupture of the perineum, the globe pessary is usually found to be preferable to any other form.

Finally, several operative methods have been proposed to effect the radical cure of reducible prolapsus, which has resisted treatment long applied. I here merely allude to the operation for contracting, and that for entirely closing the vagina, and refer you to the proper authorities for the manner in which they are performed.*

II. The *general* treatment of prolapsus uteri will, of course, depend on the precise condition of each patient. If all the functions are still in a normal state, as is often the fact in recent cases, no medication at all is required.

Generally, however, the digestion is more or less deranged before the patient applies for aid. Constipation exists in almost all cases; and saline laxatives, if there be any heat or tenderness of the parts, or rhubarb and soda, or some other mild aperient, if there is no such symptom, may be required. This symptom removed, the bitter tonics are

* See Churchill on Diseases of Women, p. 362, and 366–8.

generally indicated; and iron also, if there be anæmia. You have observed how frequently I have felt it necessary to prescribe the various preparations of iron in this class of cases. Bland, but the most nutritious diet, is also required; and much riding also, with but very little walking. Regular sleep must be secured by the use of valerian or lactucarium at night; or of some other soporific of the same class with them, rather than of opiates. But I can only indicate the general principles under this head, since the peculiarities of each case will suggest its general management.

III. I must add a word in regard to the *moral* treatment of this affection. Your sympathy for the patient, as indicated by your kindness and delicacy of manner, will often accomplish far more than your general treatment; and the hope you inspire by your candid expression of your expectation to relieve, or to cure, is the most efficient of all tonics. Such patients are usually despondent, and the physician should, if possible, keep them cheerful by suggesting appropriate occupation and amusements; and while he sets an example of kindness and sympathy, he should inculcate the same upon the friends of the patient with whom she is in constant relation. Especially should the husband, if the patient has a husband, be made to understand the nature of the case, and why his wife is changed in spirits, and perhaps in temper also, as she is. A husband's sympathy is often, in such cases, worth more to the patient than all the medication; and the latter is often rendered entirely useless by a want of it. Doubtless you will sometimes be tried by the caprices, the irritability, and even the perverseness of such patients, especially if they have been much indulged; and will be obliged, at times, to manifest no little decision. This is, however, not inconsistent with the kindness I have inculcated; and when, at last, the cure is accomplished, you will find yourself fully compensated by a woman's gratitude, and which is never more deep, sincere and lasting, than when it is based on the successful results of professional skill in combination with such conduct as I have suggested.

On Coryza Maligna. By BERNARD KELLY, M.D., Physician to the New York Dispensary.

J. C., at seven months, was attacked on the 13th of April last with coryza maligna. I saw the child on the following day, and consequently had ample opportunity to observe the peculiar phenomena of the disease almost from its origin to its fatal termination. The symptoms simulated those of ordinary nasal catarrh, but were marked by a

greater intensity. There was an abundant discharge of a glairy mucus from the nostrils; the conjunctivæ were injected; the face and neck sensibly swollen; the temperature of the skin was very little, if any, above the natural standard; a gentle perspiration covered the whole body; the bowels showed a slight tendency to constipation. The little patient nursed with a great deal of difficulty and distress, being obliged to relinquish the nipple every two or three seconds in order to catch breath. He was by no means fretful, as one might, at first sight, expect from the excessive gravity of the case, but, on the contrary, lay, for the most part of the time, in a torpid, drowsy condition, from which he was only aroused by the assiduous attentions of his nurse, or when excited by the cravings of hunger. There was a constant exacerbation of all the symptoms towards night.

Severe, unquestionably, as the latter were, I did not venture to have recourse to decided antiphlogistic measures. I calculated on the disease persisting a considerable time, and consequently deemed it more judicious to foster the strength of the little sufferer, in order to conduct him safely, if possible, through the terrible ordeal which awaited him. I ordered a quarter of a grain of quinine to be given every three hours, with a powder composed of *hydrarg. cum creta*, and rhubarb, at bedtime, in sufficient proportions to relax the bowels gently. This treatment was persevered in for three days with every hope of encouragement, when the symptoms suddenly redoubled in severity. It was now deemed advisable to call a consultation, and accordingly a physician of great experience and judgment was sent for, who concurred in the treatment, and suggested the propriety of a warm bath that night. It was given, and the following morning the child was covered with a profuse eruption of measles. It may be well to remark here, that there was no cough, nor any physical sign of bronchitis or pulmonary congestion previous to, or following the appearance of the exanthem. The breathing was natural in every respect, save that it was performed entirely through the mouth, which was thereby parched, and needed frequent wetting. The catarrhal symptoms abated not a particle in their intensity; the general condition of the patient, however, was not materially worse. His food consisted principally of arrow-root and beef-tea, which he used with no inconsiderable relish. Towards the eighth day from the first attack, the eruption began to decline, and the discharge from the nares to grow less consistent, but scarcely less profuse. He again sought the breast with great avidity (for several days had now elapsed since he was capable of nursing,) and bore the spoon-feeding with evident reluctance. His attempts, however, were

not more successful than those mentioned in the early stage of the disease, and precisely for the same reason. The bowels now became excessively relaxed, without any apparent cause, and the strength of the child was sinking rapidly. Small doses of *Tr. opii camph.* were given with the quinine, but were obliged to be suspended from the fact of nausea and vomiting being induced. The alvine discharges became less frequent and watery; they were, however, exceedingly foetid—a character which even the breath and cutaneous exhalation partook of to a certain degree.

Matters continued in this precarious state till about the fourteenth day, when all the symptoms of membranous croup suddenly manifested themselves. The respiration became hurried and stridulous; while ever and anon the *brazen cough* rang upon the ear with an ill-boding sound. No febrile excitement supervened; on the contrary, the temperature of the surface (which was now of a sallow, dingy hue) was very sensibly diminished. All the animal heat of the patient seemed to concentrate itself in the soles of the feet and palms of the hands. On examining the fauces attentively, the whole soft palate and tonsils were found covered with a yellowish-white false membrane; the nares were lined by a similar deposit. The disease had marched so rapidly (as shown by urgent *dyspnœa* and coldness of the body) that I utterly despaired of all topical medication. The chlorate of potash was now given with the view of arresting the further exudation of lymph and oxydizing the blood; while the patient's strength was sought to be supported, in the mean time, by aromatic spirits of ammonia and burnt brandy. All these means proved completely inadequate; for he sank steadily, and died in twenty-four hours from the first manifestation of the croupal symptoms. There were no convulsions from the beginning to the close of the disease. The child preserved throughout his natural intelligence, which, I may remark, was unusually precocious.

Were I to express an opinion candidly upon the pathology of *coryza maligna*, I would unhesitatingly place it in the same category with scarlatina, erysipelas, diphtherite, and *à fortiori* with croup. The same depression of the vital powers, the same blood-poisoning, I might add, seem to be at the source of all, and to constitute their most prominent morbid characters. I should, therefore, were I to meet another case similar to the one under consideration, begin from the very outset (so as to crush it in the bud) with free doses of quinine and tincture of iron, either in combination and simultaneously, or separately and in alternating intervals, as its peculiarity or emergency might require. The tender age of the patient should present no obstacle to

a bold trial of this treatment. For there is very little difference (as far as the life of the subject is concerned) whether we calmly look on with folded arms, as it were, and allow the disease to march to a fatal termination, or that we arrive at the same end through the activity of our remedies; such, at least, are my present convictions; further observations may lead to more important developments.

The most reliable topical applications would, undoubtedly, be the sulphate of alum and nitrate of silver; yet, if the disease consists in some fundamental change (as I believe it does) in the physiological constitution of the blood, it is not very easy to comprehend how local means can be of any decided benefit, while the *materies morbi* lies so far beyond their reach, and thereby remains intact. The physician, now-a-days, would be rationally deemed behind his age, who would rely upon topical applications solely in the treatment of erysipelas or scarlatina; and, reasoning from analogy, there cannot be the slightest doubt but that the same rule would apply equally appropriate in the case of coryza maligna. All that may well be expected from injections of alum or nitrate of silver is an arrest of further exudation of lymph, or its destruction, if already effused, in the parts with which they come in contact, and thus become auxiliary to the constitutional treatment; but the mucous membrane of the larynx, trachea, and bronchial tubes yet remains, to furnish a large surface for the fatal scope of the disease, and will, consequently, circumscribe the salutary action of local applications within very narrow limits.

Report of the Committee of the Medical Society of the State of New York on Pharmaceutical Preparations.

The committee to whom certain pharmaceutical preparations were referred, beg leave to report, that these preparations were fluid extracts, so called, presented by Messrs. Tilden & Co., and specimens of sugar-coated pills and boluses, presented by Mr. Reichard, agent for the manufacturers, Messrs. Garnier, Lamoureux & Co., of Paris.

The discussion, which arose upon the motion to appoint this committee, seemed to indicate a desire on the part of the Society for a general inquiry into the value of these comparatively new preparations, and this report will, therefore, take a somewhat wider range than a strict construction of the resolution which calls it forth, might warrant. Your committee are, however, quite confident that no serious objection to this course will be raised.

Almost immediately after the adjournment of the Society, a circular was prepared, setting forth the purposes of the committee, and accompanied by a series of questions, to which answers were desired. A copy of the circular is annexed to this report.

The inquiries were divided under four heads, viz.: A, of fluid extracts; B, of solid extracts; C, of active principles; D, of sugar-coated pills; and it will be best for the divisions of this report to follow the same order.

A, of Fluid Extracts.

From the answers to the inquiries of your committee, concerning fluid extracts, it appears that this class of preparations are chiefly furnished to the profession in this State, by Tilden & Co., and by Thayer & Co., but it is not quite clear to which the preference is given. Some speak very decidedly in favor of Thayer's, and assign their reasons very distinctly. The majority, perhaps, of those who appear to have given a thorough trial to both manufacturers, seem to prefer Thayer's, but they are a minority of those who have replied to the inquiries of the committee. Your committee have used both preparations, and there seem to be grounds for preferring Thayer's. Usually the dose is smaller, and the extract has more the appearance of an ordinary tincture. The Tildens' preparations are usually more syrupy in their consistence. On this point your committee would not speak very decidedly, but are quite certain that they ought, in alluding to the subject, to commend a careful comparison of the preparations of both manufacturers to the profession. Such a comparison will probably result in a decided preference being given to certain preparations of one manufacture, and to certain others of the other. A few of the correspondents of the committee speak favorably of the fluid extracts of Keith & Co. These do not appear to be much known to the profession generally. The only one of this manufacture which has been used by your committee, is *veratrum viride*, and has been so concentrated as to require extreme caution in its use.

As a general rule, practitioners obtain their preparations from druggists, and not directly from the manufacturers. It is noticeable that those who obtain them directly from the manufacturers, speak with more decision of their excellence than others. This may be from their supplies being fresher.

It is very clear that "the strength or value of preparations of the same drug from the same maker," is not constant. Some of the correspondents of your committee complain very much of this inequality; while it is no doubt owing to this fact, that such different opinions are expressed concerning the extracts of the same drug. Thus some cor-

respondents appear to place perfect dependence upon the fluid extract of *veratrum viride*, while others say decidedly that it is entirely worthless. Careful observers find that different samples do differ in their strength; and this fact ought to be distinctly understood. The inevitable variations in the valuable qualities of the plant or other crude drug from which the fluid extracts are prepared, make it imperative on the part of the manufacturer to use every care in the selection of his materials, while the difficulty of detecting these variations makes it doubtful if this difference in the extracts can be entirely avoided. Each new package should, therefore, be carefully tested by the physician when he commences to use it. From this fact it is evident that the fluid extracts of the more active drugs are not so well adapted to the use of the simple prescriber in city practice, as to that of the practitioner who dispenses his own medicines.

The testimony is uniform that in this State the fluid extracts keep very well. In some of the Southern States complaint is made that they ferment.

As to the deposit of sediment, it is not generally noticed to exist in large amount. The chairman of your committee found, in examining thirty-six different extracts of Tildens' manufacture, as they stand in a druggist's shop, that ten of them had no deposit at all; in eight it was slight; in three it was very abundant, sometimes amounting to a quarter of the contents of the bottle, and of a honey-like consistence; and in the remaining preparations the deposit, though not so profuse, was quite marked. *Taraxacum* seems to be especially apt to deposit a sediment. Professor William Procter, Jr., of Philadelphia, the able editor of the *Pharmaceutical Journal*, in the answers which he kindly made to the inquiries of the committee, says that nearly all of these preparations do deposit a sediment, "but not necessarily to their injury." In such large quantity, however, as some of these specimens gave, it must be injurious.

Comparing fluid extracts with tinctures, some of our correspondents prefer one form, and some the other, the parties being almost equally divided, and both speaking very decidedly. A portion are in doubt. Where they are in favor of using the extracts in preference to the tinctures, the reasons assigned are greater uniformity, smaller dose, less taste, and the smaller quantity of alcohol. Your committee doubt if these advantages are not more imaginary than real, and would place fluid extracts and tinctures *carefully made*, on the same footing. Especially is this true of the preparations of the more potent drugs, as aconite and *veratrum viride*. The latter is spoken of by the corre-

spondents of your committee, with especial frequency, and has perhaps been most commonly used of all the fluid extracts. As compared with Norwood's tincture, it possesses no advantage as to dose, and in that the portion of alcohol is quite small.

So, too, it is with the tinctures of more common use, as, for instance, of rhubarb. The dose of the extract has to be about, if not quite, as large as that of the tincture; its taste is no pleasanter; its action in no way preferable. In fact, your committee would place them upon precisely the same level with good tinctures, carefully made from the best quality of drugs.

It is curious to observe that there is the most varying estimate of the value of the different extracts, by the different correspondents. One gentleman finds everything made by the Tildens to be perfectly reliable, while others find those made by the same firm to be as entirely unreliable. The truth we suppose to be between these extremes. But there is one fact that may account for a portion of this variation of opinion. Ergot is spoken of most uniformly as inert, or nearly so; the enthusiastic correspondent just quoted, admitting that it is "as variable as any." Cotton root stands in the same class, and is spoken of in the same way. Admitting that the cotton root has the action upon the uterus, which is attributed to it, may it not be a fair conclusion that these extracts have been thought to be inert, because they have been administered when they were not indicated? It is far from being true that ergot will produce uterine contractions under all circumstances, and the inappropriate use of the drug ought not to be allowed to affect our opinion of its potency.

In the hands of your committee, the Fl. ext. of ergot has repeatedly produced excessive nausea, compelling its discontinuance, and a resort to the decoction. The preparation of pink root and senna has been carefully tried, and repeatedly by this committee, and with constant failure. That the diagnosis of the presence of lumbricoides has been correct, was repeatedly proved by the subsequent use of santonine, when these parasites promptly presented themselves in the dejections.

Before leaving this class of preparations, your committee take the liberty to object to the "directions for use," which are attached to the bottles containing these preparations by the Messrs. Tilden. It is true they are put on the back of the bottle, or rather on the side opposite the label containing the name of the preparation. They may not be intended to give directions for popular use, but they have that appearance and tone. Certainly physicians do not need, or ought not to

need, such information to be so placed. One of the most, perhaps the most objectionable of those labels, is that upon the cotton root. It reads thus:

“Prepared from the bark of the root. Used as an emmenagogue and parturient. As an emmenagogue it is not inferior to ergot in producing uterine contraction, and more safe. It may be used as a valuable remedy in chlorosis, amenorrhœa, dysmenorrhœa, &c. The cotton root is habitually and effectually resorted to by the Southern slaves for producing abortion, and this without any apparent injury to the general health. Dose, table-spoonful, repeated at discretion.”

We are very doubtful of the effects of this drug on the “Southern slaves,” but admitting it to be true, such information ought not to be communicated to the public. To produce abortion is, in almost all cases, a criminal action, but one already too common. The assurance that it can be done, without injury to the general health, will add to the frequency of the attempt; and when once the moral sense is blunted by the attempt, if this drug fails, other means will be used. A reliable druggist has informed us that already there is a call for this extract, from persons who can only want it for this purpose, and without the advice of physicians. All the information which the profession requires concerning this preparation, is furnished by the advertisements of this firm, and we trust that they will see the wisdom of removing these explanatory labels.

B, of Solid Extracts.

It is the narcotic extracts that are most commonly used, though gentian, nux vomica, dandelion, &c., are occasionally mentioned by the correspondents of your committee. In examining a series of these preparations as found in the shops, one is struck by the similarity of odor which many of them give. It is perhaps best described as a burnt molasses or burnt liquorice odor. The color is very uniformly in such preparations a dark brown or black, rendering it entirely impossible to distinguish one preparation from another if the labels chance to be lost or misplaced. It is not surprising, then, that they should have lost reputation, especially with the older practitioners. The more recent manufacturers, however, have greatly improved them, and we find that a large number of correspondents are quite satisfied with Tilden & Co's preparations. Their conium is especially mentioned with approval. It would, however, be an improvement if these extracts were made more solid, their softness requiring too much inert powder to be added to them to bring them into a sufficiently solid condition to remain in the form of pills, for which they are chiefly used.

A few of the correspondents of your committee speak very highly of the extracts manufactured by Allen & Co., of England. From the examination made of them by your committee, we are quite confident that these may rank first among those now found in market, and we would call the attention of the Society to them. By using care in the selection of the extract, and *great* care is necessary, and keeping it carefully in glass-ware, good extracts of the solid form will keep a long time. Otherwise, and especially if kept in a damp place, they will mould. The preparations of an inferior quality are pretty sure to mould anywhere, unless they have been boiled, and reduced, till none of the original elements remain unchanged.

As there were some reasons for supposing that the use of Cannabis Indica might be increasing among the people, for the sake of its intoxicating effects, your committee ventured to step so far out of the line of their duties as to inquire concerning this. With a single exception, the answers have been that there is no indication of such use. This fact is one on which we may congratulate ourselves as physicians, for its use could scarce fail to lead to a resort to opium, which already is indulged in to a fearful extent.

C, of Active Principles.

The preparations to which this name is given do not appear to be much used by the profession. Podophyllin is the only one that is spoken of with any frequency. Of this the most various opinions are expressed, some of the correspondents of your committee condemning it as irregular and violent in its action, while others like this and the other similar preparations so much as to use them largely in the place of extracts.

The preparations from different manufacturers vary extremely in their qualities. The color differs, and the effects when administered differ; and no doubt this is one ground, perhaps the main ground, for the different opinions. It is very doubtful if these preparations can be ranked in the same class as quinia, as being the "active principles" of the plants they represent. It is not so precise a process to obtain podophyllin from the mandrake as it is to obtain morphia from opium, and till that certainty in the manufacture can be attained, their use must be attended by some difficulties. One correspondent says it is "a great pity that there is not a uniform standard formula for their manufacture by pharmacutists." Such a standard would, perhaps, tend to do away with much of the variation in the strength of different preparations, but would not make them fixed substances like the sulphate of quinia and similar salts. From the answers made to the

inquiries of your committee, it would seem that these preparations have not yet attained an established position in the materia medica.

Before leaving this topic, it may be remarked that there are a few of our correspondents who speak of podophyllin as a substitute for calomel. It is more correctly estimated by others as a substitute for scammony or for jalap. Careful observation will show that it resembles calomel in its action but very little, and that resemblance is in its most unimportant peculiarities. It will sometimes produce a tenderness of the gums, but different entirely from the specific effect of mercury upon them; and when the specific effect of mercury is necessary, it would be impossible to attain it by the use of podophyllin.

D, of Sugar-Coated Pills.

The coating of pills and boluses with sugar, has for its object, of course, the concealment of the taste of the drugs. To this, the only objection that has been urged is, that it is putting on a resemblance to some forms of quackery.

This is, however, an objection more theoretical than practical. To those who have used these preparations, it is quite clear that the coating does not affect the action of the drugs, while it does conceal their taste, and patients do prefer them to pills not coated.

Several American manufacturers are in the habit of making them, the best being furnished by the Tildens. The French pills, made according to the U. S. Pharmacopœia, by Garnier, Lamoureux & Co., of Paris, are thus far the best of all that are found in the market; but our makers are gradually rivaling them. Great care must be used in their manufacture, to select the best materials, to mix them thoroughly, to coat them well, or the reputation of the makers will not be established or retained. This, however, is true of the makers of all such preparations. "*Improvements*" by the manufacturers are not generally acceptable to the profession. The manufacturer's duties are rather mechanical, and the introduction of varied formulas should be left to medical men. On the use of these preparations we cannot do better than to quote the remark of one of the veterans of this Society. In writing to the committee he says: "To save an honorable profession, to minister to the health, and save the lives of men, we should use all the arts of chemistry and pharmacy to render medicine palatable."

In conclusion, your committee beg leave to thank the gentlemen who have replied to their inquiries, and respectfully submit this report.

EDWARD H. PARKER, M.D.,

HOWARD TOWNSEND, M.D.,

AUGUSTUS L. SAUNDERS, M.D.

Albany, Feb. 7, 1860.

MONTHLY SUMMARY OF MEDICAL JOURNALISM.

By O. C. GIBBS, M.D., Frewsburg, N. Y.

Reduction of Strangulated Hernia.—In the *Maryland and Virginia Medical Journal* for April, Dr. Stockdell reports a case of strangulated congenital hernia in a child three months old, that was reduced without an operation, in the treatment of which there are some points of interest worthy of making a note of. *Taxis* was tried “under the full influence of an anodyne enema followed by a warm bath;” also, subsequently, “under the influence of an *anæsthetic*,” but entirely without favorable results. “A tobacco leaf was procured and thoroughly moistened with warm water, applied to the whole abdominal parietes. At 1 o’clock, its effects being only slightly perceptible in the pulse—the abdominal distention remaining unchanged—it was removed and flannel cloths wrung out of a very strong, hot infusion of tobacco, directed to be applied in its stead and frequently changed.” The tobacco was continued from nine in the morning until seven in the evening, when the hernia was spontaneously reduced.

Ovariectomy.—In the April number of the *Md. and Va. Medical Journal*, Dr. B. Roemer, of Otter Bridge, Va., reports a successful case of ovariectomy. We intend that our *Summary* shall contain a record of all such successful operations, performed in this country, the report of which comes to our eye.

Dr. Roemer’s patient was 38 years old, and the mother of eight children. The tumor was of three and a half years’ growth, and, when removed, it weighed, with contents, 25 pounds. The patient made a good recovery, no symptoms of inflammation having manifested themselves.

Bloodletting in Inflammation.—In the *Lancet and Observer* for April, Dr. J. F. Hibbard, of Richmond, Ind., has a lengthy article upon general bloodletting in the treatment of inflammation. In our *Summary* for April we gave a brief synopsis of a paper upon the same subject by Prof. L. M. Lawson. Dr. Hibbard supports the opinions of Prof. Bennett, while he takes issue with the views and reviews the arguments of Prof. Lawson. Dr. Hibbard believes, with Professor Bennett, that inflammation is the same now that it has ever been, and that the change in treatment is not so much the result of a change in the type or grade of inflammatory action, as it is the result of a change in the views and opinions of practitioners. Though we should be glad to analyze the paper before us, we must be con-

tent with a few quotations. Dr. Hibbard says, "The purpose and effect of general bleeding is to reduce vital action and lessen nutrition; but as the inflammatory fever is the evidence of an already existing depression in vital action and lessened nutrition, and is the thing to be removed, we cannot apply bleeding for this purpose until we are ready to adopt the doctrine that to cure a disease we must amplify its pathology, which would be absurd. And thus we determine a negative answer to the query, whether bleeding can abate or control inflammatory fever in a manner that tends to a restoration of normality. It has already been shown that inflammation, as a local disease, cannot be benefited by general bloodletting. We now arrive at the conclusion that in inflammatory fever it is equally impotent for good, and hence, led by our course and method of study, we are prepared to answer the question, Can general bleeding prevent or arrest inflammation? It cannot.

Theory, therefore, in her own pleasant way, steps in and lends the shoulder of science to support the world-wide practice of the abandonment of general bleeding for the purpose of cutting short or arresting inflammation. And this she does, not by soothing us with the assurance that years ago inflammation was a great behemoth, and we did right to jugulate him, while now it has become a caged animal that we must feed and cultivate to its destiny, but by telling us distinctly that it is the same to-day that it ever was, and that now we have light and see our past errors; we should be true to our manhood and adorn our profession, by being willing on all suitable occasions to acknowledge that we were once in the dark, and honestly did wrong because of that darkness."

Yellow Fever—New Treatment for.—Prof. E. D. Fenner, Editor of the *New Orleans Medical News and Hospital Gazette*, in the fall of 1858 called attention to the use of *veratrum viride* and *chlorine* in yellow fever. In the spring of 1859 he published full directions for their use. Prof. Fenner's experience was based upon more than 50 cases treated with unusually satisfactory results.

In the same journal for April, Dr. William McCraven, of Houston, Texas, has an article upon the treatment of yellow fever. Dr. McCraven adopted in part the suggestions of Prof. Fenner, and, like him, reports quite satisfactory results. Dr. McCraven usually emptied the stomach in the first place with mustard, or simple warm water; this was followed by a mercurial purge, and when the fever was fully developed he cupped the head, stomach, or back, and commenced immediately with the following mixture:

"R.—Tincture of veratrum viride,	3j.
Tincture of aconite,	3j.
Sulphate of morphia,	gr. j.
Syrup of orange peel,	3 iv.

Water to make a four-ounce mixture. Give a teaspoonful every two hours during fever. This was usually continued for thirty-six or forty-eight hours." . . . "After adopting the course outlined, I have never been more successful. I was at one time in the midst of the epidemic twenty-five days without the loss of a single patient, and I lost but two under this course of treatment. My patients were much relieved, unquestionably, by the emptying, and I think the mercurials were clearly indicated by the quantity of bile; but still I feel assured that the veratrum and aconite influenced the results to a considerable extent. I had heretofore been prejudiced against veratrum in yellow fever; I feared its irritating effects on the stomach, but in practice I found exactly the reverse. I think I cannot be mistaken in the notion that by its influence on the circulation it prevents in a great measure those congestions, both of stomach and kidneys, which terminate so often and so fatally in black vomit and suppression of urine."

New Treatment for Congestive Chills.—In the *N. O. Medical News and Hospital Gazette* for April, Dr. J. E. Keator reports a case of congestive chill, of almost hopeless character, which was promptly relieved by the internal administration of chloroform. He says, "I commenced by giving five drops in a little water. Within less than two minutes after the dose was swallowed the girl remarked that the burning at her stomach was gone, the vomiting ceased, and she seemed to rest a little. I continued giving it at intervals of from ten to fifteen minutes, for nearly two hours, in the same quantity as at first, and each time had the satisfaction of hearing from the lips of the patient herself, that it made her stomach feel so much better that she wanted more of it. At the end of two hours the pulse was full and strong at the wrist, the extremities were warm, and reaction was fully established." Quinine, in full doses, was next administered, another chill prevented, and the patient soon restored to health.

Cause of Goitre.—In the *Louisville Medical News* for March is published an inaugural essay by Dr. N. W. Brown, of Mexico, upon the subject of goitre. It would seem, from the Doctor's article, that this affliction is a very common disease in many parts of Mexico. After eight years of observation in the goitrous districts of Northern Mexico, he concludes that the disease "is produced by the use of

water impregnated with minerals." These minerals are "iron, copper, lead, sulphur, and alum, in their many different forms and combinations existing in nature."

Dr. Brown says we seldom find minerals in Mexico at an altitude above two or three thousand feet, and that up the mountains, above the mineral line goitre does not occur. He says, further, that he never knew goitre to occur endemial "where the inhabitants thus effected did not use water impregnated with *minerals*, quite perceptible even to the taste."

A New Remedy for Consumption.—In the *Louisville Medical News* for March, a writer that we strongly suspect may be Dr. J. Lawrence Smith, in a review of *Headland on the Action of Medicines*, incidentally refers to a new remedy for tuberculosis. The remedy is a combination of fresh *linseed oil and whiskey*. Of it the writer says, "In a reasonable experience of five or six years the results are so encouraging that we have no disposition whatever to fall back upon the more offensive and very expensive article which is said to be obtained from the liver of the cod-fish." . . . "In the use of the linseed oil and whiskey, we are in the habit of ordering a teaspoonful of each three times a day, and as the stomach becomes accustomed to it, increasing the quantity to a tablespoonful. When they are put in the same bottle and shaken up thoroughly, before use, the taste of the oil is in a great measure covered up by the spirit, and is very rarely offensive even to delicate stomachs." . . . "It would be mere repetition to go over the words cough, expectoration, hectic, emaciation, night-sweats; but all these things have we seen pass away under the use of the oil and whiskey, and a few months have brought up the patient to normal weight, normal appearance, and normal sensation. It is not designed to claim for the linseed oil any medicinal advantages over the cod-liver; but if it is more certainly pure, if it is cheaper, if it is less offensive, and accomplishes what is claimed for the fish oil, it certainly commends itself as a boon to poverty and to sensitive stomachs, and as such we commend it to the profession."

We think this combination would not be amenable to one of the objections urged by Dr. Bull against whiskey alone—that of inducing intemperate habits!

Inversion of the Uterus—In the April number of the *Cleveland Medical Gazette*, is published the first part of the deposition of our esteemed friend and preceptor, Prof. John Delamater, in the Fisher case, now pending in the courts of Chicago. In the paper before us, Prof. Delamater gives expression to some opinions in regard to inver-

sion of the uterus that are not in accordance with the traditional opinions of the profession. It is the opinion of the authorities in this matter, that inversion commences by depression of the fundus of the uterus; which depression must have its origin in the last labor. Prof. Delamater thinks that inversion may, in some cases, commence at the neck of the uterus. After describing the manner of inversion by depression of the fundus, he says, "But there are a few cases in which the womb is very differently situated, especially after severe labors, in which the powers of the womb, as well as of the general system, have become exhausted. Frequently such a loss of power and action on the part of the womb, arises from extreme loss of blood, either during the labor, or after delivery, sometimes, notwithstanding that the womb is known to have contracted favorably at the close of the labor; yet falling subsequently into a state of relaxation, extreme bleedings have ensued, and continued until the womb has become as soft and pliable as a wet ox-bladder, while from the entire relaxation, the flow has passed away so freely as to allow of no accumulation within to preserve its cavity and prevent a collapse of its inner surfaces upon one another, insomuch that there may remain no cavity into which the flabby fundus could be depressed. It is evident, as I apprehend, that the process of inversion in such a case must be different from the common opinion of it. I have several times passed my hand into wombs situated precisely as last above described, for the purpose of exciting contraction by the stimulus of the moving hand within it; and sometimes have in that way, also, introduced special agents for rousing it to activity, and revolving such. Cases in my practice have occurred where the smallest special pressure upon it could hardly fail to force it down through its mouth, equally relaxed and void of all resistance, as I believe to have occasionally happened. I have said to myself, it is impossible that in such a case, the inversion should begin by depression of the fundus into the cavity of the organ; but on the contrary, that subject to pressure tending to force it downward, in such a case, it would inevitably be crushed into an irregularly-folded mass, which must emerge from its narrower mouth in an order commencing immediately above the neck. If the mouth were extremely yielding, and the impulsive force adequate, the whole of the organ would be forced through so suddenly as to render it impossible to trace the order of its emergence by the touch, even though the finger were at the moment within the vagina."

Malarial Fever.—That intermittent fever is in some way dependent upon heat, moisture, and vegetable decomposition, for its causatives, has long been the commonly received doctrine among medical teach-

ers. It has been supposed that vegetable matter was all-important, heat and moisture being only necessary to bring about the necessary decomposition to develop and render gaseous the requisite poison. Now and then, a dissenting voice has been raised, and new theories propounded, but, so far, without success in gaining anything like general assent among intelligent members of the profession. It is true, unanswerable objections have been raised to the vegetable origin of the malaria, but each new system has been subject to as many, if not more, equally fatal objections, and the profession, for want of a better, still clung to the old theory.

In the *Nashville Journal of Medicine and Surgery* for January and April, its editor, Prof. W. K. Bowling, has articles upon the subject of malarial fever, in which he gives expression to his views, which, differing from the old theories in regard to the causatives of this disease, are of interest to those who have seen objections to the vegetable miasm theory. He says: "It has been shown again and again, by as truthful and competent observers as ever lived, that every variety of malarial disease exists where no vegetation exists or can exist. And in every such locality, without a single exception, it is in proof that water existed in such a relation to intense solar heat, as to prevent rapid evaporation. What then, if we do find water in the same relation to solar heat in other localities, with decomposing vegetable matter present, when it is demonstrated, that whether it is present or absent, the result is precisely the same.

"Again, it has been repeatedly shown by observers equally as truthful and competent, that vegetation in vast quantities may rot, and fill the air for miles around with its vile stench, where water does *not* sustain the proposed relation to solar heat *without* producing malarial disease, or any sort of disease. Are we to throw aside all these suggestive and precious observations for the poor parrot privilege of repeating forever the words of the great *auctor princeps* upon paludal emanations?"

Prof. Bowling's opinions in regard to the development of malaria are thus enunciated: "A certain relation of watery fluid to long-continued and intense solar heat, always secures malaria, *and nothing else will*, is my own doctrine; and I believe, the only one that will account philosophically for all the facts which we are compelled to admit in connection with the etiology of malarial fever. This relation of watery fluid and solar heat must be such, as that the latter can operate powerfully upon the former, while the former is so situated as to prevent rapid evaporation."

Trismus Nascentium treated with Quinine.—In the *Chicago Medical Examiner* for March, Dr. H. A. Johnson reports a case of trismus nascentium cured by the administration of quinine. Deriving no benefit from previous treatment, he says: "At 11 o'clock in the evening of the second day, thirty-four hours from the first attack, I gave the little patient one grain of sulphate of quinine. In a few minutes a severe spasm came on, differing in no respect from the fifty or sixty that had preceded it. The next interval was a full hour, a longer period than any which had hitherto occurred. The paroxysm was slight and shorter in duration than usual. For the next two hours the patient rested in a sweet and gentle sleep. On awakening, there was a little closure of the jaws, and slight spasm of the muscles of respiration, but nothing in comparison to the fearful contortions that we had previously witnessed. For the next five hours there was not the first symptom of a convulsion, but at 7 A. M. the lips became somewhat livid, and the breathing irregular. This lasted only for a few minutes. I immediately gave another grain of the sulphate of quinine. From that time there has been no symptoms of a return of the disease, and the child is now perfectly healthy." This is Dr. Johnson's second case of cure with quinine, and, if we rightly remember, the same treatment has previously been successfully resorted to in one or more cases.

Treatment of Croup.—Before the Chicago Academy of Medicine, as per report in the *Medical Examiner* for March, Dr. Davis approved the use of the *Turpeth mineral* in croup, which had proved very successful in his hands during a period of nine years. He said "he was in the habit of urging its claims in his lectures to his class, and he relied mainly upon it in the treatment of this disease."

Subcutaneous Injection.—In the several issues of the *Boston Medical and Surgical Journal* for April, Dr. A. Ruppener has a serial article upon the treatment of neuralgia by the subcutaneous injection of narcotics, &c., illustrated with cases. Dr. Ruppener holds the following language: "In all cases where the cutaneous, and particularly superficial cutaneous nerves have been the seat of the malady, this treatment has answered my most sanguine hopes. Even in cases of long standing, when combined with appropriate constitutional treatment, I have succeeded in giving relief, for a considerable period of time, to the painfully harassed patient, after all other possible expedients had been tried in vain.

"And let me here append a few words in regard to constitutional treatment in neuralgia, as one of the conditions of success. In almost every case that has come under my observation, a tonic treatment has been indicated. I have tried both mineral and vegetable tonics, and

must give the preference to vegetable tonics. I have used the sulphate of quinine in many cases, and in all but one it was followed by good results. I am of opinion that a tonic treatment ought at once to be adopted, with few exceptions; and that the same ought to go hand in hand with the local treatment."

Vomiting in Pregnancy.—Before the Louisville College of Physicians and Surgeons, as per proceedings in the *Medical News* for April, Dr. Thum said "he had found bi-sulphate of soda and crab cider a specific for vomiting of pregnancy." Another member present, whose name is not mentioned, stated that he had a case of very distressing vomiting associated with pregnancy, under his charge, and after failure of all his prescriptions, had advised cold hip baths. The husband had modified this suggestion by pouring a pitcher of cold water down the spine, with prompt alleviation of symptoms whenever resorted to. Several members had used the *oxalite of cerium* with quite satisfactory results in similar cases, and others entirely without benefit.

Hypophosphites in Spurious Hydrocephalus.—In the *Medical Press* for March 31st, we made some remarks upon the use of the syrup of the hypophosphites, in some conditions of the brain in young children, with an illustrative case. That the brain and spinal marrow contain phosphorus largely, is well known, and it is quite probable that deaths occasionally occur from nervous prostration or exhaustion of the nervous centres that might be saved by the timely use of the agent under consideration. We have often thought that the use of strychnine was much neglected in conditions as above, for we know we have seen it operate more satisfactorily than any other known remedy, in the advanced stages of typhoid conditions, and we now take pleasure in calling the attention of the profession to an agent against which there is less popular prejudice, and in the use of which, there is less danger from careless administration, and which may yet be found to fulfill an indication of no small importance.

Sore Nipples.—In the *Medical Press* for March 31st, Dr. J. B. Amiss, of Va., gives a new cure for that distressing complaint. He says he has employed many times, and with uniform success, the following: "One part tincture of iodine to three of water." . . . "The iodine wash was applied with a camel's hair pencil, morning and night, a few days, when I had the satisfaction of seeing my efforts to relieve my patients eminently successful." We hope that, in other hands, the remedy proposed by Dr. Amiss may prove equally successful; if so, it will prove a great boon to that interesting and worthy portion of the human race whose duty and pleasure it is to bear and nurse children.

Strangulated Hernia treated with Opium.—In the *Chicago Medical Journal* for April, Dr. S. W. Noble has an interesting article upon the above subject. He says: "The treatment that we propose for the relief of strangulated hernia is full and oft repeated doses of opium until complete narcosis is produced. When given in this way, opium will evidently produce a more complete relaxation of the muscular system than any other known remedy. It possesses this advantage over most other relaxing medicines—you can manipulate without giving pain. But on the other hand, if you relax the system perfectly with tartar-emetic or tobacco, and apply the taxis, you cause pain in the parts which excite contraction in the muscles implicated in the hernia, which are the ones you wish to relax. The same objection applies to chloroform, with this slight exception—the patient is not conscious of the pain, and you have not the influence of volition to contend with.

Opium, likewise, when given in large doses, say from three to five grains to an adult, arrests vomiting, which is one of the most unpleasant symptoms, quiets the irritability of the system, and effectually prevents inflammation and mortification in the strangulated portion of the bowel. When the patient is thoroughly and permanently under the influence of opium, if the stricture is not relieved and the bowel returned spontaneously, it may be readily accomplished by a renewal of the taxis. At least, that has been my experience in these cases."

Dr. Noble reports *seven* cases in which the opium treatment has proved perfectly successful, and these, he says, are the only cases of strangulated hernia that have occurred in his practice. On the recommendation of Dr. Noble, Dr. A. H. Luce, of Bloomington, has treated two cases with opium, with success, and Drs. Harrison Noble, of Keyworth, and J. W. Coleman, of Le Roy, have each treated one in the same manner, and with the same results. Thus, *eleven* cases have been reported, with results quite satisfactory. This is certainly an interesting experience, and we have no doubt the suggestion of Dr. Noble will be soon put to a more extended trial.

Stomatitis Materna.—In the *Chicago Medical Journal* for April, Dr. L. S. Ellis has an article upon the above subject. The article gives evidence that its author is familiar both with the disease and its literature. We quote his treatment: "I am accustomed to use the two following prescriptions with uniform success:

R.—Magnes. calc.,	3j.
Sapo. hisp. pulv.,	grs. x.
Camphor, "	
Sang. can.,	ää, grs. v.

Mix. Dose from three to five grains, four times daily.

R.—Cinch. Rub.,	℥ss.
Ferri carb.,	
Rad. rhei.,	ää. 3ij.
Port Wine,	Oj.

Ft. mist. Dose, table-spoonful with each meal.

When there is loss of appetite, I direct the tonic to be taken half an hour before eating, and the powder soon after; otherwise, both are to be taken soon after eating. In many cases where there is not much constitutional debility, and in the earlier stages, I find the first prescription amply sufficient to control the disease."

Arsenic in Menorrhagia, Dysmenorrhœa, &c.—In the February number of our *Summary*, we referred to a paper by Dr. A. P. Burns upon the use of arsenic in many uterine diseases; the article of Dr. Burns was published in the October issue of the *American Journal of Medical Sciences*. In the March number of the *Belmont Medical Journal*, one of the editors has the following: "Since reading the above article, we have had an opportunity to test the merits of arsenic in several cases of menorrhagia. In all of them it proved successful, without producing any unpleasant effects. We have used it in dysmenorrhœa and leucorrhœa, with results more satisfactory than anything previously used. We suggested its use to a neighboring physician, in a very alarming case of uterine hæmorrhage from placenta previa, some five weeks before accouchement, where there had been previous attacks of a very threatening character, and at all subsequent attacks it controlled hæmorrhage, but always produced a strong and persistent uterine aching; the woman went her full period, and had a speedy and safe delivery under the care of Dr. Campbell, with no unusual hæmorrhage or untoward symptoms."

Fungoid Growth of the Gums and Jaws.—In the *Dental Cosmos* for April, Dr. W. D. Holbrook reports two cases of fungous growths from the jaw cured by the application of pulverized charcoal, after a failure of a variety of other means. In the cases reported, the fungus had been removed with a ligature, with the knife, with caustics, and with the actual cautery, all to no purpose, as the disease returned with great rapidity. The application should be made frequently, and the remedy persevered in for several weeks.

Iodide of Potassium in Neuralgia.—In the *Maryland and Virginia Medical Journal* for March, (the proprietors will please accept our thanks for the back numbers of this excellent Monthly,) Dr. F. P. Bibby has an article upon the use of iodide of potassium in neuralgia. He says: "I can say, after some experience, that there is no remedy

which seems to be more beneficial in neuralgias than the iodide of potassium, in full doses. Exciting the secretions and excretions, it may be supposed to act by eliminating the morbid cause; and in this way, probably, we see its good effect in chronic rheumatism, chronic syphilis, and other analogous conditions, and for the same reason it may be expected to cure neuralgic troubles generally."

Iodide of Potassium in Diseases of the Brain in Children.—In the *Maryland and Virginia Medical Journal* for February, is copied an article upon the above subject, from the *Edinburgh Medical Journal*, from the pen of John Coldstream. The editors of the *Md. and Va. Med. Journal* subjoin the following note: "We can fully endorse the benefit of this remedy in tubercular meningitis, if there is any reliance to be based upon a diagnosis made most carefully. During the past year, two cases happened to us in consulting practice, and in neither case was there a difference of opinion with any of the physicians concerning the nature of the disease. This modest but able paper of Dr. Coldstream has forestalled an account of the cases which we had drawn up for publication. But the views here expressed so completely anticipate our own, at the time the paper was written, that we are glad to find a more entertaining substitute by endorsing this."

We are glad to see this able evidence in favor of a plan of treatment we have pursued for years, and also, the still more able endorsement. Mercury and bloodletting, the text-book remedies for hydrocephalus, or rather tubercular meningitis, have done quite too much injury in these cases, and we trust in future reliance may be placed upon safer and more appropriate remedies. In the paper of Dr. Coldstream, surprise is expressed that so few references are on record of the use and utility of this remedy in head affections of children. He makes allusion to such as have fallen under his observation.

We do not complain that he has left our humble name out of the list, but we take pleasure in referring Dr. Coldstream and his endorsers to a paper of ours upon the same subject, published in the January No. of the *AMERICAN MEDICAL MONTHLY* for 1856; also to another in the March No. of the *Medical Examiner* for 1853. In the article first named, we used the following language: "I wish to call more especial attention to the remedial powers of iodide of potassium. In meningeal tuberculosis I believe it to possess an influence second to no other known remedy." . . . "I have used it in several instances with success, in cases that I supposed to be meningeal tuberculosis; cases, too, some of them, in families of which several of the children immediately preceding had died of the disease under consideration, as

they respectively became of a certain age, having received the usual antiphlogistic treatment at the hands of eminent and skillful physicians."

For the last eight years, we have used the iodide of potassium in tubercular meningitis, as well as in other head affections of children, and the results have been such as to induce us, on several occasions, to recommend its use to others in similar cases. We will conclude our remarks upon this subject by a quotation from the paper of Dr. Coldstream: "My own experience leads me to regard the iodide as more likely than any other drug to promote this desired end; and my confidence in it, as the remedy best adapted to all stages of tubercular diseases of the head, is so strong, that whatever else might be done or left undone, I would persevere in administering it, even in circumstances the most desperate."

REVIEWS AND BIBLIOGRAPHY.

Therapeutics and Materia Medica: A Systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By ALFRED STILLE, M.D., Late Professor of the Theory and Practice of Medicine in the Medical Department of Pennsylvania College, etc., etc. Philadelphia: Blanchard & Lea. 1860. Two Vols., 8vo.

Is a new work on Therapeutics needed? This question the author of the treatise, the title-page of which prefixes this article, of course propounded to himself before engaging in the labor of writing two large volumes on the subject. The work itself is his answer to the question. We are of opinion that he was right in answering it affirmatively. Without disparagement of the works which have appeared on this subject within the past few years, it has received far less attention than other departments of medical knowledge, and it claims from medical writers more attention than it has received. We can readily understand that, in surveying the domain of medicine in order to select a portion in which bibliographical labor could be rendered most useful, Dr. Stillé was led to choose the subject of therapeutics. The next question which an author would be likely to ask of himself is, Am I the proper person to write a work on the subject proposed? This question, also, our author virtually answers when he enters on the task of writing the work. Here, too, we believe the author, in this instance,

has not misjudged. In fact, among those in our country distinguished as medical writers and teachers, we know of no one more competent to prepare a work on therapeutics, having the character and scope of the one before us, than Dr. Stillé. A man of scholarly attainments, familiar with medical literature, a clear thinker, an elegant writer, a good observer, a conscientious truth-seeker, he possesses the qualities of mind admirably suited to an analytical investigation of our present knowledge of the subject, together with the rare ability of communicating to the reader didactic information in a systematic, lucid, and attractive manner. An examination of the treatise will, if we are not mistaken, afford confirmation of the fitness of the author to the work which he has performed.

We do not intend to write a critical review of Dr. Stillé's treatise. It covers so much ground that the reviewer would require more space than is consistent with the limits of this journal. Nor do we profess to speak of the merits of the treatise after a thorough, careful perusal. Our object in this notice is simply to furnish our readers with an account of its general plan, and the arrangement of topics, with the impression which we have formed after an examination, as yet, of necessity partial.

It is not a treatise on *materia medica* and therapeutics, but essentially a work on the latter subject; the consideration of medicines, in their physical, chemical, and physiological relations, holding a subordinate place, and, in fact, receiving comparatively little attention. To quote the author's language, the point of view from which the treatise has been written is rather of the bedside of the sick than in the laboratory or the lecture-room. The therapeutical considerations, however, are, for the most part, presented in connection with the different classes of remedies. The Introduction occupies somewhat less than one hundred pages. We should have been glad to have seen a much larger space devoted to General Therapeutics, but we are well aware that this was difficult in a work comprehending the whole range of special therapeutics. The following topics are considered in the introduction: Sources from which medicines are derived; sources of knowledge in therapeutics; sources of knowledge respecting the action of medicines; the physiological action of medicines; the local action of medicines; the remote action of medicines; absorption; the avenues by which medicines are introduced, and the effects which they produce; the curative action of medicines; influences modifying the effects of medicines; the administration of medicines; the art of presenting, and the classification of medicines. These topics are quite sufficient

in themselves for a large volume, and, for one, we should be glad to read such a volume from the pen of Dr. Stillé.

Of the foregoing list of topics, that which possesses especial interest and importance is the sources of knowledge in therapeutics. While we accord fully with the views presented by the author under this head, we cannot but regret that he did not consider the topic at greater length. There can hardly be a point in medical philosophy more interesting or important than an inquiry into the modes by which therapeutical knowledge is obtained. We agree with Dr. Stillé when he says, "Experience is really, as well as rationally, the only ground upon which curative effects can be expected from medicines." But in order for this truth to be received by all minds, it would have been well to have entered into a fuller consideration of the grounds on which it rests, and to have shown how it does not conflict with the practical application of physiology and pathology to the study of therapeutics. The plainest and simplest rational inferences from pathological conditions, as to the indications for certain remedies, demand the results of experience to convert these indications into therapeutical principles. Thus, what can apparently be clearer than that an offending substance in the stomach is to be evacuated by an emetic? Yet the fact that certain substances act as emetics, the efficacy of an emetic under these circumstances, the particular kind of emetic to be employed, the mode of administration, &c., are only to be determined by experimental observation. It is equally to be inferred from the knowledge that certain diseases depend on a *materies morbi* in the blood, that it is desirable either to neutralize or eliminate this morbid material; but whether it can be neutralized or eliminated, and if so, by what measures, must be determined by experience, and by experience only. How is medical experience to be obtained? What are the different methods of experimental observation? What the difficulties and liabilities to error in prosecuting these methods? How are the results of experience to be made applicable to individual cases of disease? These and other questions lead to considerations bearing directly, and, if we may use so strong a term in this connection, momentarily on medical practice. We know of no one better qualified to discuss these points than Dr. Stillé, and we should have been glad to have seen a much larger space devoted to them.

The author arranges medicines into twelve classes, viz.: Lenitives, astringents, irritants, tonics, general stimulants, cerebro-spinal stimulants, spinants or tetanics, general sedatives, arterial sedatives, nervous sedatives, evacuants, and alteratives. This arrangement is per-

haps as good as any that can be framed, with our existing knowledge of the effects and *modus operandi* of different remedies. The several classes are treated of successively, in the order in which they have just been enumerated. First, are considered the general principles of therapeutics involved in each class, and then the results of experience, their action in health and disease, etc., of particular remedies belonging to the class, together with the practical rules regulating their employment in the treatment of diseases. The aim of the author is to present a fair representation of therapeutics in so far as the labors of medical observers of the past and present time afford a basis of facts and principles. As the author justly remarks, "it is impossible in such a work to present in detail the observations, or even the conclusions, of medical writers; and therefore," he adds, "while it has been attempted to furnish a truthful, although a succinct account of both, numerous references to original sources of information are provided for those who desire to prosecute the investigation. These consist of ancient classical authorities, and modern writers of the highest reputation in the Italian, French, German, and English languages, whose observations have been preserved in special essays, or in that great repository of facts, the periodical medical literature of the present century." Mere references constitute a very useful feature of the work. The author says further, (quoting from the preface,) "It seemed as if a treatise executed in so catholic a spirit, and with no conscious bias towards any sect or school, ought to contain a large proportion of solid and useful truth." We believe that it does contain a large proportion of solid and useful truth, and with this belief, we most cordially commend the work to those who may honor this brief notice with a perusal.

A Guide to the Practical Study of Diseases of the Eye, with an Outline of their Medical and Operative Treatment. By JAMES DIXON, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital, Moorfield; formerly Assistant-Surgeon to St. Thomas' Hospital. From the Second London Edition. 12mo, muslin, pp. 425. Philadelphia: Lindsay & Blakiston.

This volume has already been five years before the profession, and will not require an analysis at our hands. The treatment of eye diseases has become somewhat of a specialty, especially operative treatment. It is, however, none the less important that every physician acquaint himself as thoroughly in regard to such diseases as any other. It is not every physician who will be called upon to perform the most

difficult and delicate operations upon the eye; but he should be prepared to give judicious advice, and acquaint his unfortunate patients of the full resources of our art. Diseases requiring operative treatment are much less common than those demanding medical aid; and however thorough may be the physician's knowledge in regard to eye diseases, that knowledge will find frequent requisition in the discharge of his every-day duties. There are but few, if any, diseases under which the sufferer is more impatient, or more thankful for relief.

The work before us is much less voluminous than Lawrence's or Mackenzie's upon the eye, and on this account, is preferable. In this age of many books, great voluminousness is a great objection, especially in a text-book for the busy practitioner. Dixon's work has another and still more important advantage over the encyclopædial works just referred to: It is of more recent authorship and issue, and thoroughly posts the student in all the modern improvements in diagnosis and treatment of eye diseases. To the general practitioner we recommend the work before us, with pleasure, confident that it is, perhaps, the best work for his use on the subjects upon which it treats, to be found in the English language. This second edition is somewhat enlarged from the former edition, and several of the chapters have been rearranged and rewritten. Should another edition be called for, we would suggest one improvement that would greatly facilitate the convenience of the work for reference. The book is without an *index*; the addition of one, carefully prepared, would greatly enhance its value. A *table of contents*, however copious, will not supersede the necessity of an alphabetically arranged index. The mechanical execution of the work is unexceptionable.

O. C. G.

EDITORIAL AND MISCELLANEOUS.

— The large amount of original matter, and the presence of an index in this number, must be our apology for the brevity of our editorial. Several reviews and notices of books have been deferred to another month, and the Proceedings of Societies we have been obliged to omit altogether. In commencing a new volume, we shall endeavor to make such a disposition of our pages that each department shall receive its proper quota, and a greater variety be given to our readers. We have to beg the indulgence of those of our correspondents whose articles have been deferred, and in closing this volume, we do so with the intention of improving upon it in our next.

—Two volumes of the publications of the New Sydenham Society have recently been received, which make five volumes issued by this Society for the year 1859. We learn from the report of the Council, that there are over 2,000 subscribers to their publications, and the list is rapidly increasing. With an increase in the amount received from members, the frequency of the publications will increase. Should the list reach 3,000, the Council propose to issue, in addition to the works already agreed upon, an Atlas, containing three of Hebra's Illustrations of Skin Diseases. This latter work would be worth the price of the subscription alone, and will constitute, when completed, the best and most magnificent Atlas of the kind ever issued. Besides this, the publications for 1860 will be:

Clinical Memoirs on Abdominal Tumors and Intumescence, by Dr. Bright.

A Year Book for 1859: Being a Register in condensed Abstract of all important communications, whether British or Foreign, in Medicine, Surgery, and their allied Sciences during the year.

Frerich's Clinical Account of Diseases of the Liver.

Vogel and Neubauer on the Examination of the Urine.

The subscription price to this Society is but \$5.25 a year. Dr. C. F. Heywood, No. 66 West Twentieth Street, is the Local Secretary for New York.

—A new book by Dr. Alfred C. Garratt, of Boston, is soon to be issued by Ticknor & Fields, of the same city. It is entitled the *Medical Uses of Electricity in the Treatment of Nervous Affections*. It will be a thoroughly systematic work, of over 700 pages, and nearly 100 cuts, showing not only the best methods for the therapeutical employment of electricity in the various nervous affections, but also showing the anatomy of the parts to be involved, and a concise view and means of diagnosis of the great variety of nervous diseases met with every day. The work proposes to fill a vacancy which exists in medical literature upon this subject.

—A *Maison de Santé* has recently been opened in New York, the announcement of which, we believe, will be received with pleasure by the profession. The arrangements are such as will be highly beneficial to the interests of any physician who may have a patient requiring careful attendance, or who may need the comforts of a home. It is under the professional management of Dr. Henry Schweig, and is located in Second Avenue, near Ninth Street. We shall give an account of this establishment in our next number.

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